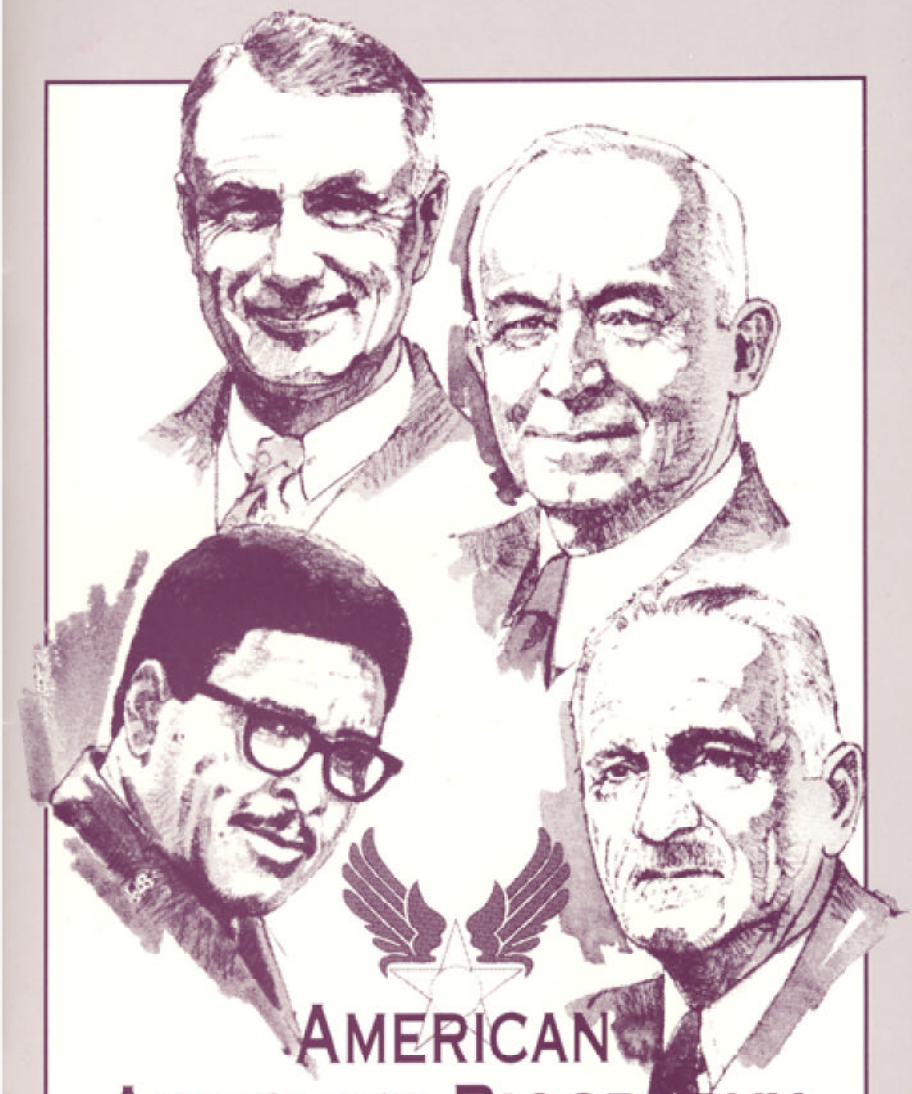

AMERICAN AIRPOWER BIOGRAPHY

A SURVEY OF THE FIELD

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American Airpower Biography

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Introduction

It is the involvement of people that has given history its enduring fascination and popularity. One field within history, biography, has always been especially appealing. All of us have a deep interest in knowing how others, perhaps like ourselves, have met challenges, dealt with failure, and accommodated themselves to victory and fame. On a more mundane level, there is a curiosity to see how those who were great lived their day-to-day lives and how they handled their loves, short-comings, attributes, frailties, and quirks. Knowing that great men and women were, at base, quite human is a comfort. It is also a source of hope and encouragement because it means that even the most humble of us can aspire to greatness.

Certainly there are geniuses born among us, but the lives of most of those we consider noteworthy are marked by an unexceptional background and a fortuitous turn of events. Sincere, hardworking, and courageous people find themselves in positions of responsibility when circumstances of great pith and moment are thrust upon them. It is remarkable how difficult it is to predict how individuals will react in such circumstances. Often, those groomed for leadership are found wanting in times of crisis, while those who do step forward are from unexpected quarters. Indeed that has been the case with many of our country's great airmen.

This essay reviews the state of American airpower biography and autobiography. I have set certain parameters to define the boundaries of my discussion. The literature is presented in the categories of biographies and autobiograpies, anthologies, and oral histories. Individuals included here are military officers who served in senior positions. Thus, although the stories of great aviators like Eddie Rickenbacker, Charles Lindbergh, and Chuck Yeager are important, they did not command large forces in combat nor in peace and had only a temporary effect on the development of strategy and doctrine. Similarly, civilian political leaders and industrialists like Stuart Symington and Donald Douglas, though playing key roles in their own spheres, are not included. What follows are the stories of America's greatest military airmen: some told by themselves, others by biographers; some have been published, and some have not. Surprisingly, a number of air luminaries are not noted here, so there is still much work to be done.

Biographies and Autobiographies

Unfortunately, one of the greater gaps in the historiography of airpower is in the area of biography. Both Noel Parrish and David MacIsaac in their Harmon Memorial Lectures in Military History commented on this deficiency and encouraged historians to rectify it. Some listened, but too few. At the same time, the dearth of autobiographies by senior airmen is an even greater problem. Surprisingly and significantly, there has not been a memoir published by one of our air leaders since Curtis LeMay's effort three decades ago. The absence of such personal reminiscences is perhaps even more serious than the lack of biography.

Mason M. Patrick was the first real head of American aviation. Although an Army engineer for 30 years, in 1918 Gen John J. Pershing, Patrick's West Point classmate, appointed him as commander of the Air Service in France. In Pershing's words, there were many fine people in the air arm, but they were "running around in circles"; he wanted Patrick to make them go straight. Although knowing virtually nothing about aviation at that point, Patrick was an excellent organizer and administrator. By the end of the war, the Air Service was an efficient and well-run combat arm. After the armistice Patrick returned to the Corps of Engineers, but in late 1921 he was recalled to the Air Service. His predecessor, Charles Menoher, could not get along with the most famous airman of the day, William ("Billy") Mitchell, and, in the resulting power struggle, Menoher lost. Because Patrick had managed the difficult airman during the war, he was given the opportunity to do so again. For the next six years Patrick remained at the helm, although Mitchell left the service in 1926. Patrick's memoir, *The United States in the Air* (Garden City, N.Y.: Doubleday, Doran, and Co., 1928) is, as the title implies, a rather sweeping look at the function and organization of airpower in this country, rather than a strictly autobiographical work. It is disappointing. The style is leaden, and we are provided very few insights into the personalities and issues so turbulent at the time. Except for the oft-repeated story of how Patrick—upon his assumption of command in October 1921—confronted Mitchell, and won, the controversial airman is barely mentioned. Similarly, the key issues of air strategy during and after the war, the organization of the new air arm and its role in national defense, and its relationships with the Navy are extremely muted. In short, although Patrick was a key player at a most important time in American airpower history, this book sheds little light on anything of importance during that era.

Patrick's only biographer to date is Bruce A. Bingle, who wrote "Building the Foundation: Major General Mason Patrick and the Army Air Arm, 1921–1927," MA thesis, Ohio State, 1981. Bingle does a workmanlike job of presenting a bureaucratic history of the Air Service as seen through the eyes of Patrick. It is a fairly sympathetic account, and portrays the air chief as an airpower advocate as determined as Billy Mitchell, but possessing far more tact and political acumen. Missing, however, is a more personal insight into Patrick's personality and leadership style.

In addition, Patrick is currently being examined by Maj Robert White, a historian on the Air Staff at the Pentagon. His study, a dissertation for Ohio State University, will focus on Patrick's tenure as head of the Air Service and then the Air Corps. White hopes to complete his biography by the summer of 1995.

Billy Mitchell is the most famous and controversial figure in American airpower history. The son of a wealthy Wisconsin senator, he enlisted as a private during the Spanish-American War. Quickly gaining a commission due to the intervention of his father, he joined the Signal Corps. He was an outstanding junior officer, displaying a rare degree of initiative, courage, and leadership. After challenging tours in the Philippines and Alaska, Mitchell was assigned to the General Staff—at the time its youngest member. He slowly became excited about aviation—which was then assigned to the Signal Corps—and its possibilities, and in 1916 at age 38, he took private flying lessons.

Arriving in France in April 1917, only a few days after the United States had entered the war, Lieutenant Colonel Mitchell met extensively with British and French air leaders and studied their operations. He quickly took charge and began preparations for the American air units that were to follow. The story of American aviation mobilization in World War I was not a glorious one. It took months before pilots arrived in France and even longer for any aircraft. Nonetheless, Mitchell rapidly earned a reputation as a daring, flamboyant, and tireless leader. He eventually was elevated to the rank of brigadier general and commanded all American combat units in France. In September 1918 he planned and led nearly 1,500 allied aircraft in the air phase of the Saint-Mihiel offensive. Recognized as the top American combat airman of the war (he was awarded the Distinguished Service Cross, the Distinguished Service Medal, and several foreign decorations), Mitchell, neverthe-

less, managed to alienate most of his superiors—both flying and nonflying—during his 18 months in France.

Returning to the US in early 1919, Mitchell was appointed the deputy chief of the Air Service, retaining his one-star rank. His relations with superiors continued to sour as he began to attack both the War and Navy Departments for being insufficiently farsighted regarding airpower. His fight with the Navy climaxed with the dramatic bombing tests of 1921 and 1923 that sank several battleships, proving—at least to Mitchell—that surface fleets were obsolete. Within the Army he also experienced difficulties, notably with his superiors Charles Menoher and later Mason Patrick, and in early 1925 he reverted to his permanent rank of colonel and was transferred to Texas. Although such demotions were not an unusual occurrence at the time—Patrick himself had gone from major general to colonel upon returning to the Corps of Engineers in 1919—the move was nonetheless widely seen as punishment and exile. Not content to remain quiet, when the Navy dirigible "Shenandoah" crashed in a storm and killed 14 of the crew, Mitchell issued his famous statement accusing senior leaders in the Army and Navy of incompetence and "almost treasonable administration of the national defense." He was court-martialed, found guilty of insubordination, and suspended from active duty for five years without pay. Mitchell elected to resign instead as of 1 February 1926 and spent the next decade continuing to write and preach the gospel of airpower to all who would listen. The election of Franklin D. Roosevelt, a Navy man, was viewed by Mitchell as advantageous for airpower. In fact, he believed the new president would appoint him as assistant secretary of war for air or perhaps even secretary of defense in a new and unified military organization. Such hopes never materialized. Mitchell died of a variety of ailments including a bad heart and influenza in 1936.

There are several biographies of Mitchell, and the most balanced and useful treatment of this important airman is unquestionably Alfred F. Hurley's, *Billy Mitchell: Crusader for Air Power*, revised ed. (Bloomington, Ind.: Indiana University Press, 1975). Hurley deals sparingly with the general's early career and personal life, concentrating instead on his war experiences, the postwar years, and his theories of airpower employment. Mitchell was the first prominent American to espouse publicly a vision of strategic airpower that would dominate future war. He believed that aircraft were inherently offensive and were strategic weapons that revolutionized war by allowing a direct attack on the "vital centers" of an enemy country. These vital centers were the mighty industrial areas that produced the vast amount of armaments and equipment so necessary in modern war. He did not see this as either illegal or immoral. In fact, given the trench carnage of the First World War that slaughtered millions, he argued that airpower provided a quicker and more humane method of waging war. To carry out effectively this mission of strategic attack, he argued that it was necessary to separate aviation from the Army and Navy

because they were too traditional and surface-oriented. Mitchell's persistent jibes at the Navy were especially nasty, and Hurley argues they not only fostered bitter interservice rivalry but also spurred the Navy to greater efforts in developing carrier-based aviation—the precise opposite of what Mitchell intended. Nonetheless, Hurley concludes these shortcomings were more than balanced by a vision and foresight regarding the future of war, later proved substantially correct, that sustained the fledgling air force during its early and difficult years.

There are several other published accounts of Mitchell's life; most are hagiographies written during or soon after World War II that depict him as a prophet without honor and as a martyr for airpower. Surprisingly, few even discuss his airpower theories and concentrate instead on the sensational aspects of his career. Of this genre, the best is Isaac Don Levine's, *Mitchell: Pioneer of Air Power* (New York: Duell, Sloan, and Pearce, 1943; revised in 1958 but without significant new material). Levine reveals Mitchell's personal life, including his early years as a junior officer, basing his story largely on letters and interviews. Although no footnotes or bibliography are included, Levine obviously did a great deal of research. Unfortunately, besides employing an overly breathless prose, the book suffers from a strong bias: Mitchell is glorified and his very real character flaws are ignored. Mitchell was vain, petulant, racist, overbearing, and egotistical. Although his aggressive advocacy of airpower was entertaining and won much publicity, it is questionable if his antics actually swayed public opinion or that of Congress. Indeed, it could even be argued that his incessant and vicious attacks on the Navy did more harm than good and induced an animosity between sailors and airmen that has never really abated.

Three biographies that are, frankly, of little value are Emile Gauvreau and Lester Cohen, *Billy Mitchell: Founder of Our Air Force and Prophet without Honor* (New York: E. P. Dutton and Company, Inc., 1942); Roger Burlingame, *General Billy Mitchell: Champion of Air Defense* (New York: McGraw-Hill, 1952); and Ruth Mitchell, *My Brother Bill: The Life of General "Billy" Mitchell* (New York: Harcourt, Brace, and Jovanovich, 1953). This last does, however, quote heavily from Mitchell's unpublished manuscript describing his tour in Alaska from 1901 to 1903. This little-known story of the Signal Corps's efforts to string a telegraph line across the territory is quite interesting. Another work that is a cut above those just mentioned is Burke Davis, *The Billy Mitchell Affair* (New York: Random House, 1967). This treatment is unique in that it covers in some detail Mitchell's famous report of his visit to Hawaii in 1924 in which he predicted a future war with Japan that opened with a carrier-based air attack on Pearl Harbor. In addition, Davis had access to the transcript of Mitchell's court-martial. His coverage of that event is fairly extensive, and although his treatment is evenhanded, it tends to put the airman in a favorable light and as a victim of Army conservatism.

A doctoral dissertation that takes a different view of the court proceedings is Michael L. Grumelli, "Trial of Faith: The Dissent and Court-Martial of Billy Mitchell" (Rutgers University, 1991). This is an interesting and detailed account of Mitchell's 1925 trial for insubordination that argues the general was convicted not only because he was guilty as charged but also because his defense lawyer was woefully inept. Bungled cross-examinations and a clever prosecutor produced testimony from expert witnesses that revealed virtually all of Mitchell's charges of military incompetence and negligence to be unfounded. Grumelli concludes that Mitchell's decision to provoke a public court-martial was a serious miscalculation that quickly revealed his "tremendous arrogance, extreme self-righteousness, gross exaggerations and blatant inaccuracies." He further concludes that Mitchell, who was surprised at his conviction, spent the rest of his life vainly seeking vindication, but instead found himself fading quickly into obscurity, devoid of either influence or importance. His rejection by Roosevelt for a senior post in the administration was the last straw.

Raymond R. Flugel's PhD dissertation, "United States Air Power Doctrine: A Study of the Influence of William Mitchell and Giulio Douhet at the Air Corps Tactical School, 1921–35" (University of Oklahoma, 1965) argues that there was a direct link between the two air theorists. Flugel even argues that Mitchell's writings owed a heavy debt to Douhet, a debt never acknowledged. He bases this charge on the discovery of a partial translation of "Command of the Air" (published in Italian in 1921) in the Air Service archives that was dated 1922. This was at least a decade prior to the translation of a French edition done for the Air Corps by Dorothy Benedict and George Kenney. Unfortunately, this discovery, which is indeed an important one, is totally wasted by the author's flawed methodology. Flugel attempts to show plagiarism by a textual analysis of "Command of the Air," Mitchell's writings of the mid-1920s, and the textbooks of the same era. He actually reproduces several paragraphs, underlining similar words and phrases to show their similarity. However, instead of using the newly discovered 1922 translation—which presumably would have been available to Mitchell—Flugel instead relies on the Dino Ferrari translation of 1942! Because the two versions have significant differences, Flugel's charges remain unproven.

Published over two decades after his death are Mitchell's *Memoirs of World War I: From Start to Finish of Our Greatest War* (New York: Random House, 1960; parts of the diaries were serialized in Liberty magazine in 1928). This is a compilation of his experiences in France from April 1917 to the armistice based on the diaries he kept at the time (now lost). As with any such work, it is not clear how many of the opinions and predictions presented here were of later device. Not surprisingly, Mitchell comes across looking quite prescient as to the unfolding of the war. There are, however, some notable aspects to this book. The distaste and low regard Mitchell held for Benjamin Foulois,

his nominal superior, is apparent. It is a pity that two of the most senior and most important American airmen, who should have been close allies in their advocacy of airpower, were bitter enemies. Also apparent is Mitchell's remarkable curiosity about all things regarding air warfare. This book is replete with descriptions of myriad and diverse details such as what time weather reports arrive at a fighter squadron and in what format, the construction of the shock absorbers on a captured German aircraft, and the type of parachutes used by balloon observers. One other revealing aspect of this memoir is Mitchell's already emerging disdain for "nonflying officers" in Washington who "know nothing about airpower," yet try to direct its course. According to this book, Mitchell returned to the United States in 1919 already convinced of the need for a separate service liberated from the control of narrow-minded surface officers.

Another of Mitchell's own works that should be noted to his ***General Greely: The Story of a Great American*** (NY: Putnam's, 1935). Adolphus W. Greely was one of the more interesting characters of his era. He fought in the Civil War, strung telegraph wire across the southwest United States, and was an internationally known Arctic explorer. In 1887 he was promoted to brigadier general and named Chief Signal Officer of the US Army, a post he held until his retirement in 1906. During those two decades he modernized the Signal Corps dramatically, but perhaps most significantly by pushing for a rejuvenation of the Balloon Crops and by encouraging experimentation in heavier-than-air flight. Although he had retired before the Wright Brother's had sold their first airplane to the Army's Signal Corps, Mitchell credits him for creating an atmosphere of innovation that made such a contract possible. Of importance, Mitchell uses this biography as a vehicle for recounting some of his own experiences as a junior officer in Greely's Signal Corps. As a result, Mitchell gives us some insights into his activities during the Spanish-American War, his tour in the Philippines during the insurrection there, and of his rugged adventures in Alaska. Mitchell wrote this biography in 1935, the year Greely died; it came out in print the following year, soon after Mitchell's own death.

Benjamin O. Foulois taught himself to fly largely through correspondence with the Wright brothers in 1909. While many of his contemporaries died in plane crashes or quit flying, he continued as an operational pilot until World War I. He was then sent to France where as a brigadier general he was responsible for all Air Service support functions. After the war, he served as an air attaché in Germany, commanded Mitchel Field in New York, and in 1931 was named chief of the Air Corps.

John F. Shiner's *Foulois and the U.S. Army Air Corps, 1931–1935* (Washington, D.C.: Office of Air Force History, 1984) is a solid treatment of the Air Corps chief and his times. Foulois came from a humble background and was physically unimpressive; worse, he lacked the charisma of his contemporary and chief rival within the air arm, Billy Mitchell. Nonetheless, Shiner argues that Foulois's steady perseverance in working to shift War Department views regarding the importance of airpower gradually paid off, resulting in the increased autonomy of the General Headquarters (GHQ) Air Force, formed in 1935. On the other hand, perhaps because of his humble origins, Foulois was not popular among his Army brethren. Moreover, the disastrous performance of the Air Corps in the "Air Mail Fiasco" of 1934 (which was probably more Foulois's fault than Shiner acknowledges) earned him the ill will of President Roosevelt. Looking for a scapegoat, Congress—also embarrassed by the miserable Air Corps performance—held hearings into the issue of aircraft procurement. Foulois was reprimanded for "misleading" Congress and violating the spirit of procurement laws. The Air Corps chief's relations with the Navy were also stormy during this period. But in truth, given the budget crunch during the bottom of the Depression, their inherently conflicting views regarding the role of airpower in war, and the poisoned atmosphere created by Mitchell, such difficulties were inevitable. Without friends in or out of the Army and his usefulness clearly limited, Foulois retired in December 1935, a bitter and lonely man.

Shiner depicts Foulois as a poor administrator and notes he was not a deep thinker and did little to foster the development of strategic airpower doctrine during his tenure. Nevertheless, this was the golden age for such development in the Air Corps, and Shiner credits Foulois with creating a climate that allowed such intellectual ferment to occur. Overall, this is a solid account of an important figure.

Foulois tells his story in *From the Wright Brothers to the Astronauts* (New York: McGraw-Hill, 1968) with the help of C. V. Glines. This is an exciting and enjoyable memoir that combines insightful details on the early years of American aviation and an explanation of Foulois's own conduct during World War I and his years as Air Corps chief with a clever wit. The most interesting aspect of this book, however, is the gusto with which Foulois attacks Billy Mitchell. Foulois reveals that the animosity between Mitchell and himself began in 1916 when he and the 1st Aero Squadron were sent to Mexico with John Pershing in a futile attempt to catch the bandit Pancho Villa. At the same time, the chief of the Signal Corps was forced from office due to financial improprieties, and Mitchell, who had not yet even flown an airplane, was temporarily placed in charge. The poor performance of the aviation unit in Mexico resulted in mutual finger pointing between Mitchell and Foulois, and the rift never healed. Mitchell's World War I memoirs—not published until 1960—apparently offended Foulois. (Mitchell refers to him as an incompe-

tent “carpetbagger” who “no longer flew.”) So Foulois decided to tell his side of the story at age 86 and “set the record straight.” Mitchell is portrayed here as an inept braggart who was all talk and no action, a lousy pilot, and a prima donna who did more harm than good. The truth, as usual, is probably between the two extremes expressed by the two men. Pershing clearly had respect for both of them, but thought neither had the experience or maturity to run the Air Service; hence, he appointed Mason Patrick to lead the air arm and control its two main recalcitrants. Overall, Foulois delivers good pyrotechnics and an entertaining read.

Oscar M. Westover succeeded Foulois as chief of the Air Corps, holding that position between 1935 and 1938. A balloonist originally, fellow airmen saw him as insufficiently air-minded. For that precise reason he was popular with the General Staff and was thus named as Foulois’s successor. He was killed in a plane crash in September 1938 and his place was taken by Henry H. (“Hap”) Arnold. It is interesting to speculate on whether he would have played a role in the expansion of the Air Corps in the years leading up to Pearl Harbor, or if, like Malin Craig in the Army, he would have been shunted aside just as the crisis approached. There is no biography of Westover, but Frank Faulkner includes a chapter on him in his handbook, *Westover: Man, Base and Mission* (Springfield: Hungry Hill Press, 1990). In the truth, this chapter is little more than an expanded resume listing his various assignments and promotion dates with no analysis; it does, however, contain a number of interesting photographs.

James L. Crowder, Jr. is an Air Force historian who discovered a foot locker containing the personal papers of Major General *Clarence R. Tinker*; this led him to write a biography of this unusual airman who was an Osage Indian and also the first American general officer to die in World War II: *Osage General: Major General* Clarence R. Tinker (Tinker Air Force Base, Okla.: Oklahoma City Air Logistics Center, 1987). Crowder states that his book “is neither a psychological analysis of the individual nor a study of aviation doctrine in the emerging air force.” Rather, it is a mildly interesting, if somewhat chatty, account of Tinkers military career and life. In June 1942 his B-17 went down at the Battle of Midway.

We are not told here of Tinker’s theory of air warfare, but it appears from his speeches during the war that he was a strong strategic airpower advocate. The book’s major flaw is that it tells us little of what made Tinker successful. We learn instead of his personal life and character traits. These are useful, but unfortunately, are too colored by their telling through the eyes of an

adoring wife, sister, and daughter. The result is much anecdotal information but little real analysis. Nonetheless, this is a workmanlike story of a career soldier during peacetime who served in many capacities all over the world. He loved to fly, was highly competent and well respected within the Air Corps, and was probably destined for high rank and responsibility had he lived.

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Although not an aviator, **William A. Moffett** was the man chosen to form the Navy's Bureau of Aeronautics in 1921. Moffett had served over two decades as a surface sailor, won the Medal of Honor for action at Veracruz in 1914, and commanded the battleship *Mississippi* from 1918 to 1920. Nevertheless, despite his lack of prior experience in aviation, he was one of the first high-ranking naval officers to appreciate the importance of the airplane and the impact it would have on the fleet. Therefore he was eager to accept the challenge of forming an aeronautical bureau within the Navy. He was extremely successful in this endeavor. Aviation was a politically and militarily contentious issue throughout the interwar period, and it took all of Moffett's diplomacy, tact, tenacity, and savvy to see his infant air arm through its formative years. He did, however, have an unfortunate affection for airships, a technological dead end that squandered millions of dollars. Ironically, in April 1933 he jumped on board the airship *Akron* for a flight from Lakehurst to Newport. The ship went down in a severe storm off the coast of New Jersey, killing Moffett and most of the crew.

The life of this "essential man" is told by William F. Trimble in *Admiral William A. Moffett: Architect of Naval Aviation* (Washington, D.C.: Smithsonian Institution Press, 1994). This is an excellent book that gives a clear and sympathetic portrait of Moffett, arguing that his firm but enlightened leadership was essential in the successful development of naval aviation. There were many younger, more aggressive, and more knowledgeable naval aviators about, but Moffett's strong background as a surface officer gave him a credibility and trust with his superiors the others could not match. Moffett did not challenge his superiors as did Billy Mitchell in the Army, and he did not demand a separate service. Instead, he preached the necessity of keeping aviation as an integral part of the fleet. He told his young aviators to remember always that they were naval officers first and airmen second. This deft handling of the loyalty issue was crucial, and Trimble implies it saved the air arm from amputation. At the same time, the author argues that the tactics of Mitchell and his propaganda campaign provided Moffett the lever he needed to energize the naval hierarchy to form the aeronautical bureau. This is a balanced account, and Trimble notes that Moffett was often dictatorial and stubborn and tended to push projects like large airships and small aircraft carriers long after it was clear they were bad ideas. Nonetheless, the admiral

was indeed the right man at the right time. Without his vision and political acumen, naval aviation would have evolved far differently.

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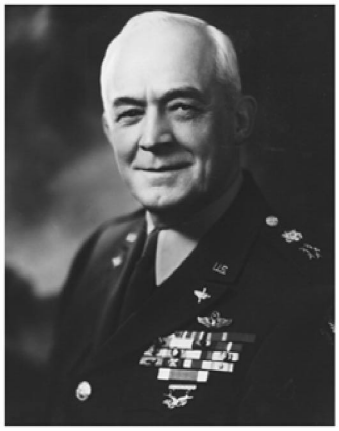
Admiral John H. Towers: The Struggle for Naval Air Supremacy by Clark G. Reynolds (Annapolis: Naval Institute Press, 1991) is a history of American naval aviation from its earliest days to the dawn of the nuclear age, as seen through the eyes of a premier naval aviator. It recounts the "struggle" of **John H. Towers** and his fellow airmen not only against the Japanese, but also against the Army and nonaviators within their own service.

Towers entered aviation in 1911; Reynolds's account of these early years is detailed and fascinating. These were difficult and dangerous times, and it is surprising how early naval aviators began resenting and questioning the actions of fellow seamen who did not fly. Surface sailors are depicted as traditional and conservative, closed to new ideas. They are charged with deliberately retarding naval aviation by holding up bud-gets, promotions, and doctrinal reform. The Army was similarly distrusted. Naval aviators suspected as early as 1914 that Army airmen had designs on their planes, pilots, and missions. Billy Mitchell's attacks on the Navy after 1919 served to confirm these fears.

The bulk of this book deals with Towers's role behind the scenes in Washington and then in Hawaii during World War II. Never holding a combat command, Towers instead played a key role in planning, mobilizing, and administering the Navy at war. Although an important story, it is not a dazzling one. Yet, Towers was important as one of the first and most innovative tactical thinkers regarding carrier operations. Two of his earliest admonitions—that carriers should be employed in task forces rather than singly or as part of a battleship flotilla and that carriers should never venture within range of land-based airpower until air superiority had been attained—were proven accurate early in the war. Moreover, from his position as chief of the Bureau of Naval Aeronautics in Washington, Towers selected those airmen, his protégés, who would command the carriers in combat. Surprisingly, however, this is not a complimentary portrait. Towers emerges as vain, ambitious, overbearing, political, and paranoid. Perhaps the most damning depiction of him concerns his vociferous efforts to block unification of the armed forces after the war. Towers played a leading role in the sorry story of the Navy's attempts to prevent the formation of the Defense Department and the Joint Chiefs of Staff (JCS), for fear they would encroach on Navy prerogatives.
Clark Reynolds is a masterful naval historian, his research is prodigious, and his writing style is pleasant. Lacking, however, is a concluding chapter that sums up the man and his impact on American military affairs. Overall, this is an important work about a largely forgotten figure.



Henry H. Arnold was one of the truly great men in American airpower. Taught to fly by the Wright brothers, he rose steadily in rank and responsibility throughout the 1920s and 30s and became the commanding general of the Army Air Forces (AAF) during World War II. In 1944 he was promoted to five-star rank, but his health was very poor—he suffered five heart attacks during the war—and he retired six months after Japan surrendered. Thomas M. Coffey's, *Hap: The Story of the US Air Force and the Man Who Built It* (New York: Viking Press, 1982) relies heavily on interviews and memoirs of Arnold's contemporaries to portray his life, and the result is an interesting though incomplete study.

Graduating from West Point in 1907, Arnold had hoped to join the cavalry. However, his cadet performance was so dismal he instead was relegated to the infantry. After a tour in the Philippines, he reapplied to the cavalry, but was again refused. Largely out of a desire to escape from the infantry, Arnold then applied for the Signal Corps and became one of America's first military pilots. Aviation was extremely dangerous in those early days, and after several crashes and near crashes, Arnold elected to ground himself. After more than three years of desk work, he overcame his fears and returned to flying. Because of his relatively extensive experience in aviation, and much to his chagrin, he was forced to remain in Washington on the Air Service staff during the First World War. After Armistice Day, he slowly began his steady rise in rank and responsibility. He commanded wings and bases, became a protégé of Billy Mitchell, twice won the Mackay Trophy for aeronautical achievement, was awarded the Distinguished Flying Cross for leading a flight of B-10 bombers to Alaska to display the range of strategic airpower, and was named assistant to the chief of the Air Corps in 1935. When Oscar Westover was killed in a plane crash in 1938, Arnold succeeded him as chief. In this position he was instrumental in laying the groundwork for the massive industrial expansion the war required. During the war itself he sat as an equal member of the Joint Chiefs of Staff and was responsible for guiding the air strategy of the various theaters. Belying his nickname "Hap" (short for "happy"), Arnold was a difficult taskmaster. He continually interfered in the affairs of his subordinates, refused to use or even organize his staff effectively, and his mercurial temper often made him quite nasty. Nonetheless, he was a man whose great weaknesses were also his great strengths. His drive, vision, and sense of initiative were indispensable in leading the air arm.

Coffey has done an excellent job of bringing Arnold's complex personality to life. Although his portrait is largely sympathetic, Coffey leaves one

with the image of a difficult and irascible husband, father, subordinate, and commander. Yet, his genius for accomplishing great things and inspiring others to perform great deeds as well is apparent. Because Coffey relies so heavily on interviews, however, his story is incomplete and biased. For example, Arnold's decision to command personally the B-29 forces in the Pacific was an unprecedented action for a member of the joint chiefs. Although the author notes this, he fails to explain how Arnold was able to convince the other chiefs—to say nothing of the theater commanders involved—to accept such an unusual command arrangement. More significantly, although Coffey alludes to Arnold's vision as an air strategist and strategic bombing advocate, he gives almost no insight into this area. Arnold's extensive writings on this subject (he authored or coauthored four books plus his memoirs) are scarcely mentioned. As a result, this biography is more of a sketch than a portrait; it provides an outline and some interesting hints, but the detail is lacking.

Flint O. DuPre, *Hap Arnold: Architect of American Air Power* (New York: Macmillan, 1972) is a fairly short character sketch based on Arnold's memoirs that is of little use. Murray Green performed an enormous amount of research over a period of several years, which included dozens of interviews with friends, family, and colleagues of Arnold. He began to write a biography, but never completed it. His effort, tentatively titled "Hap Arnold and the Birth of the United States Air Force," consists of a draft that takes Arnold up to the start of World War II. Even though only the first 20 years of Arnold's career have been covered and they are still in draft, this is an interesting start. Because of the depth of research, Green offers insights and provides information not contained elsewhere: Arnold's cadet experiences and the unique culture of West Point at the turn of the century, his relationship with Charles Lindbergh and the America First organization, and the general's problems with President Roosevelt concerning the shipment of aircraft to Europe in the late 1930s. Green's unfinished manuscript is located in the Special Collections Branch of the Air Force Academy library, along with all the notes and interviews he conducted over the years.

Arnold's memoirs were written with the help of William R. Laidlaw and are titled *Global Mission* (New York: Harper and Row, 1949). They tend to resemble the man who wrote them: energetic, enthusiastic, advocative, a mixture of broad vision and intimate detail, and somewhat disorganized. Arnold had a legendary temper, but that is not in evidence here. He had obviously mellowed in the four years since his retirement; thus, the spirited arguments with the other services—and even with individuals in his own service—are muted. Arnold notes his differences with the Navy, but he has nary a contrary word for Admirals Leahy, King, Nimitz, or Towers, his main antagonists. Although this restraint is commendable, it finesses some of the key strategic issues of the war, and we are left with rather bland comments like "after some discussion we were able to reach a compromise." His biggest

barbs are reserved for the Chinese—who he saw as hopelessly corrupt—and the Soviets—who he viewed with increasing distrust as the war progressed. By the end of the war, Arnold was already a cold warrior and concluded his memoirs with a warning to maintain an air force powerful enough to counter the Soviet Union. Especially useful are his fascinating stories of the early years of aviation and the evolution of airpower in the two decades following the First World War. His detailed account of the war years is also quite interesting, and the sheer volume of the problems he encountered are clearly illustrated. In seven pages he lists the subjects of dozens of memos that he had to write in a typical day, everything from the design of buttons that were miniature compasses to assist downed aircrews to the location of B-29 bases in China. Overall, this was an enjoyable and very readable book—one of the best of the wartime memoirs of a senior leader.

Arnold's voluminous war diaries are soon to be published. John W. Huston has laboriously edited these enormously valuable chronicles, while adding context and commentary. The availability of this source to the general public will be a much welcomed event.

There has always been a dearth of sound biographies of American airmen involved with engineering or logistics matters. William Head, an official historian with the Air Force, helps fill this void with a biography of **Warner Robins,** perhaps the first and most important of the air logisticians: *Every Inch a Soldier: Augustine Warner Robins and the Building of U.S. Airpower*. (College Station: Texas A&M University Press, 1995).

Robins was born in 1882 to a patrician Virginia family whose men had fought in the Revolution, the War of 1812, and the Civil War. Following in such footsteps, he entered West Point in 1904, the same class as "Hap" Arnold. After graduation in 1907, Robins spent a decade in the cavalry, and in 1916 his troop accompanied General John Pershing to New Mexico for the "punitive expedition" against Pancho Villa. The famous Mexican bandit escaped, but Robins did not. One of the other units on the border was the 1st Aero Squadron, a group of flimsy airplanes engaged in reconnaissance operations. Robins was intrigued by the possibilities of flight and submitted his papers for a transfer to the air arm.

Because of his relatively senior rank--he was a major by that point--Robins was put into an administrative position almost as soon as he won his wings. Although thereby missing the chance to serve in France, Robins made a reputation as a first-rate organizer. In 1919 he was assigned to the Supply Division of the Air Service, and in a sense, he never really left. For the next twenty years Warner Robins would toil in the world of logistics, mostly at Wright Field in Ohio. These were crucial, if not glamorous, assignments that put him in the forefront of technological development. Airpower was only a word unless the planes were developed and built to carry out the theories of the air advocates. Combined with this need, however, was the contradictory require-

ment to cut spending for defense in a period of fiscal conservatism heightened by the Great Depression. It was a tremendous challenge for an airman in Robins's position.

Head tells us that Robins was an outstanding logistician who was largely responsible for putting the Air Service, and later the Air Corps, on a sound administrative footing. He instituted a supply accountability system that remained in effect until the advent of computers thirty years later. Likewise, in 1927 he moved to open a logistics school for nonflying officers--in the future it would be unnecessary to rely upon officers transferred from the cavalry! Missing from this account is detail on how precisely Robins went about his task and how his ideas differed from standard practice. Clearly, however, the author's conclusion regarding his subject's impact is accurate; a series of air chiefs found his work indispensable. As the air arm expanded between the wars and its materiel functions became more complex, Robins advanced in rank to assume greater responsibilities over these efforts. In 1935 he was promoted to brigadier general--one of only four in the Air Corps at the time--and given command of the Materiel Division at Wright Field.

For the next four years Robins oversaw the entire logistics side of the Air Corps. He pushed hard for increased funding for research and development, as well as key technologies ranging from the B-17, to the Norden bombsight, to the high octane gasoline needed to power the new high performance engines. More importantly, he was in charge of the logistics end of the air arm just as the country began its massive expansion for World War II.

An indifferent pilot, Robins suffered a near-fatal crash in 1921 that broke his jaw and right arm. The following year he also developed hypertension--severe high blood pressure. Each year thereafter it became a chore to pass his physical and in some cases it was necessary for him to check into the hospital for two weeks prior to the exam so his condition could be brought under control just enough to get a clean bill of health. In 1939 he took over the Air Training Command in Texas, but in June the following year the stress of approaching war combined with his parlous health resulted in a fatal heart attack. He was 57. Three years later the Warner Robins Army Air Depot at Robins Field, Georgia, was dedicated to his honor.

Head has written and enjoyable and heavily researched account of an important airman. Logistics is not an overly exciting subject, but it remains absolutely essential to military operations. As the old adage goes, "amateurs discuss strategy, but professionals talk about logistics." Warner Robins played a key role in establishing the foundations for Air Force logistics that would stand the test of war and the transition to the independent service that followed.

Claire L. Chennault's reputation as leader of the Flying Tigers has been immortalized in movies and novels, and he is one of America's more famous airmen. He has been the subject of a number of biographies—probably more than he deserves. Of these, the best is certainly that of Martha Byrd, *Chennault: Giving Wings to the Tiger* (University, Ala.: University of Alabama Press, 1987). She gives us a portrait of someone who at turns could be gruff, stubborn, iconoclastic, gentle, or cultured.

Chennault arrived at the Air Corps Tactical School (ACTS) in 1930 with a reputation as a premier pursuit pilot. His ideas concerning pursuit employment evolved from much thought and practical experience. But Air Corps doctrine was making a decisive shift in favor of bombardment, and Chennault's attempts to stem that tide were futile. As Byrd points out, Chennault's abrasive personality negated his arguments, and his colleagues found it more satisfying simply to ignore him. Suffering from a variety of physical ailments and realizing his theories were out of tune with Air Corps policy, he retired in 1937. Soon after, he moved to China, where he served as an adviser to Chiang Kai-shek, and formed the Flying Tigers volunteer group to fight against the Japanese. The much-storied group of mercenaries-turned-heroes was well suited to Chennault's aggressive and unconventional personality. When America entered the war, the Flying Tigers were incorporated into the Fourteenth Air Force, and Chennault was promoted to brigadier general and made its commander. Never on good terms with his Air Corps colleagues, Chennault exacerbated this relationship with his constant complaints and his tendency to circumvent the chain of command by dealing directly with Chiang and President Roosevelt. Although knowing how this infuriated his superiors, Chennault persisted. As a consequence, George Marshall thought him disloyal and unreliable, Hap Arnold considered him a "crackpot," and Joe Stilwell (his superior in China) called him "a jackass." Even if his strategic theories had been correct, his method of promoting them ensured their demise. In fact, his ideas were not sound. He believed that a small force of aircraft, mostly pursuit with a handful of bombers, could so disrupt Japanese logistics as to lead to its eventual defeat. But interdiction campaigns do not win wars, and it is doubtful if any amount of tactical airpower could have prevented Japan from overrunning China, much less brought about its defeat. Though an outstanding tactician, whose determination in the face of overwhelming supply and equipment difficulties kept the Fourteenth Air Force in the field, Chennault's

strategic ideas can only be classified as puerile. Nevertheless, this is an excellent book—the best available on the important airman.

A step below Byrd's effort is that of Jack Samson, *Chennault* (Garden City, N.Y.: Doubleday, 1987). Samson flew in Chennault's Fourteenth Air Force during the war and afterwards often went fishing and hunting with his former boss. As a result, he gives some useful insights into the personality of the Flying Tiger, while at the same time providing a fairly detailed account of combat operations. This work relies heavily on Chennault's personal papers (located at Stanford University) and recounts the heavy correspondence between the general and Chinese leaders. In addition, Samson covers the decade after the war when Chennault organized the Chinese Air Transport (CAT) company. This is especially interesting because CAT worked closely with the Central Intelligence Agency and eventually became Air America. Unfortunately, the author's portrayal of Chennault is far too laudatory. The general is glorified throughout and those who disagreed with him—Joe Stilwell, Clayton Bissell, and George Marshall—are depicted as uninformed, narrow-minded, and self-serving.

A piece of wartime propaganda and boys' adventure story is Sam Mims's *Chennault of the Flying Tigers* (New York: Macrae-Smith, 1943). Only slightly above that caliber are Keith Ayling's *Old Leatherface of the Flying Tigers: The Story of General Chennault* (Indianapolis, N.Y.: The Bobbs-Merrill Co., 1945); Robert B. Hotz's, *With General Chennault: The Story of the Flying Tigers* (New York: Coward-McCann, Inc., 1943); and Duane P. Schultz's, *The Maverick War: Chennault and the Flying Tigers* (New York: St. Martin's Press, 1987). Robert L. Scott's *Flying Tiger: Chennault of China* (Garden City, N.Y.: Doubleday, 1959) is interesting because Scott was a successful fighter pilot (author of *God is My Co-Pilot*) and therefore speaks with some authority regarding Chennault's tactical ideas and his early warning network. Another work that provides some interesting insights into Chennault's personality and leadership traits is a pamphlet published by the Fourteenth Air Force Association and edited by Malcolm Rosholt, *Claire L. Chennault: A Tribute* (Rosholt, Wisconsin, 1983). The general's Chinese wife, whom he married in 1946, has also written two books that show a more personal side of his life. She depicts her husband as kind, loving, romantic, and stubborn. In addition, her works contain information from Chennault's early career that he presumably related to her during their marriage. The two books by Anna Chennault are *A Thousand Springs: The Biography of a Marriage* (New York: Eriksson, 1962) and *Chennault and the Flying Tigers* (New York: Eriksson, 1963).

Chennault's memoirs are titled *Way of a Fighter* (New York: G. P. Putnam's Sons, 1949), and that title sums up the general's view of his life—an endless stream of battles against incompetent superiors. This work opens with a foreword that decries the situation then present in China, which he maintains was caused by the ineptitude of Joe Stilwell and George Marshall. In other

words, Chennault has some old scores to settle in this memoir. No one emerges looking very dignified in this account of constant bickering, and indeed, one is left with the impression that Washington very cleverly sent its most difficult senior officers to a minor theater where they could fight amongst themselves and be out of the way. The saving grace of this book is its detailed account of the fighter tactics used against the Japanese and the hardships of operating in the China theater at the end of the American supply line.

Perhaps the best-known American airman has been **James H. ("Jimmy") Doolittle**. This was due not only to his racing plane exploits and his "30 seconds over Tokyo," but also because he lived well into his nineties. Several biographies have been written about him, including several by Carroll Glines, and indeed it was Glines who ghosted Doolittle's autobiography near the end of his life. Nevertheless, despite the copious amount of ink spilled on the general, there is yet to appear a serious study that looks closely at his career and its effect on American airpower. Doolittle was one of the pioneers of instrument flying and of advanced technology, while also being an outstanding combat leader, commanding the Twelfth, Fifteenth, and Eighth Air Forces during World War II. Yet no one has addressed the issue of Doolittle's beliefs on the proper em- ployment of airpower other than to simply state that it should not be used as a tactical weapon. Surely, Doolittle must have held some strong ideas on what German target system was most important and vulnerable to Allied attack. Even the issue of Doolittle's stand regarding the 1944 oil-plan versus rail-plan controversy—an issue of enormous strategic importance—has not been examined. In short, the definitive biography of Doolittle's life has yet to be written. Those attempted include: Lowell Thomas and Edward Jablonski, *Doolittle: A Biography* (Garden City, N.Y.: Doubleday, 1976); Carroll V. Glines, *Jimmy Doolittle: Daredevil Aviator and Scientist* (New York: Macmillan, 1972); Glines again, *Jimmy Doolittle: Master of the Calculated Risk* (New York: Van Nostrand Reinhold Co., 1980); Carl Mann, *Lightning in the Sky: The Story of Jimmy Doolittle* (New York: McBride, 1943); and Quentin Reynolds, *The Amazing Mr. Doolittle: A Biography of Lieutenant General James H. Doolittle* (New York: Appleton-Century-Crofts, 1953).

Unfortunately, his autobiography, *I Could Never Be So Lucky Again* (New York: Bantam, 1991), recounts the same anecdotes told elsewhere and offers no new insights into the man. What is missing is a frank appraisal of why he

was so effective as a combat commander. In addition, key strategic issues such as the choice of industrial targets in Germany, the morality of strategic bombing, the development of the long-range escort fighter, and command relationships among senior Allied leaders are not discussed.

Another of the great pioneer airmen was **Ira C. Eaker**. He met Arnold and Carl A. Spaatz at Rockwell Field in 1918, and the three became friends and colleagues for life. Eaker was one of the premier pilots between the wars, participating in the Pan American flight of 1926–27 and piloting the *Question Mark* in the record-breaking air refueling flight of 1929. He was also politically well connected, serving not only as an aide to Maj Gen James Fechet, the Air Corps chief, but also as the private pilot of Gen Douglas MacArthur. An excellent writer with a graduate degree in journalism, he figured prominently in airpower public relations efforts during the 1930s and coauthored several aviation books with Hap Arnold. During World War II he joined Spaatz in England to head the VIII Bomber Command and eventually the Eighth Air Force. In early 1944 Eaker moved down to Italy to command the Mediterranean Allied Air Forces. James Parton, Eaker's aide through much of the war, tells this story in, *"Air Force Spoken Here": General Ira Eaker and the Command of the Air* (Bethesda, Md.: Adler & Adler, 1986).

Fortunately for the country, but perhaps unfortunately for Eaker, the task of organizing and standing up the Eighth was extremely daunting. Eaker's talents as a leader and manager were essential. Strategic bombing was not a proven concept, the Eighth was entering combat green against an enemy already battle tested, and the prodigious production capacity of America had not yet manifested itself. Moreover, just as it appeared the Eighth was strong enough to play a major role in the war against Germany, it was stripped of men and machines for operations in North Africa and then Italy. Arnold badgered Eaker unmercifully to do more, while at the same time throttling the resources necessary to do so. In what many (including Eaker himself) considered a "kick upstairs," Eaker was promoted and moved to Italy, while his place at Eighth was taken by Jimmy Doolittle. Soon after, Eaker's labors bore fruit: air superiority over the Luftwaffe was gained, the invasion of France took place, and the sweep across northern Europe began, which eventually led to victory.

Parton relates Eaker's trials and challenges very well. Because he was there, he has a familiarity with the people and issues few others possess. And be-

cause he has a flare for history, he understands the context and significance of those issues. The main objection to this book is its unabashed admiration for Eaker. Apparently, the only mistakes the general ever made were on those occasions when he was too loyal to his subordinates or superiors—a weakness that would be seen by many as a character strength. In truth, for whatever reason, it was clear by the end of the war that Eaker was not in line for a fourth star (although he eventually received one in 1985). Clearly, there was something in his performance or personality that led Arnold, Spaatz, and Stuart Symington (the first Air Force secretary) to look elsewhere. Eaker retired and became a wealthy businessman and a prolific writer on airpower matters. Admiration aside, this is an extremely well-written and well-researched book about a very important airman.

Carl A. Spaatz was the top American air commander of the Second World War, with both Dwight Eisenhower and Omar Bradley rating him the best combat leader in the European theater. After the war he became the first chief of staff of the newly independent Air Force. There are two excellent biographies of this important airman, the first by David R. Mets at the School of Advanced Airpower Studies, titled *Master of Airpower: General Carl A. Spaatz* (Novato, Calif.: Presidio Press, 1988). Mets relies heavily on the voluminous Spaatz papers in the Library of Congress, as well as dozens of interviews, but the general's personality remains somewhat elusive. Instead, we are provided a survey of American airpower's evolution through World War II, rather than an in-depth look at the man who mastered the new air weapon.

Spaatz is portrayed as a "doer" and problem solver who achieved results. He was also an outstanding pilot who shot down three German aircraft in World War I (for which he won the Distinguished Service Cross) and flew aboard the *Question Mark* in 1929. When war broke out in 1939, Spaatz became the Air Corps's chief planner, then moved to England to command the Eighth Air Force in 1942, the Northwest African Air Force in 1943, and the US Strategic Air Forces (USSTAF) in Europe in 1944. He was perhaps the only man totally trusted by Hap Arnold—while being held in similar high regard by Dwight Eisenhower. Although a very thorough piece of scholarship, Mets had trouble with his sponsors who insisted upon removing much material that was either "too personal" or insufficiently complimentary towards Spaatz and the USAF. The result is a somewhat impersonal portrait that also glosses some of the controversial issues in which Spaatz played such a major role.

Spaatz's other biographer is Richard G. Davis, *Carl A. Spaatz and the Air War in Europe* (Washington, D.C.: Smithsonian Institution Press, 1992). This is an outstanding effort. Unlike Mets, Davis did not write a full-length biography, but concentrated on Spaatz's activities during World War II. The result is an extremely detailed, exhaustively researched, balanced, and quite readable account. Some of the issues examined in especially effective fashion include: the North African invasion and the difficulties experienced in command and control of air assets; Army FM 100-20, *Command and Employment of Air Power,* the "magna carta" of airpower that proclaimed airpower was the equal of ground power; Spaatz's error in not recognizing the importance of long-range escort aircraft; the momen tous Casablanca conference of January 1943 and its impact on air operations; the bombing assault on the island of Pantelleria that resulted in surrender without an invasion being necessary; the transfer of Ira Eaker to the Mediterranean and Doolittle's assumption of command at Eighth Air Force; the thorny command relationships among the senior Allied leaders prior to the Normandy invasion; the controversy surrounding the rail and oil plans in early 1944; and the use of strategic bombers in a tactical role during the campaign in France. Also included are excellent maps, organizational charts, and statistical appendices.

In addition, Davis provides a particularly good discussion of the attack on Dresden in February 1945. This has always been a contentious issue because of the number of lives lost, the lateness of the war, and the cultural significance of the city. Davis concludes the city was a legitimate military target, the AAF did attempt to precisely bomb the city's marshaling yards, and that if opprobrium attaches to anyone, it should be Winston Churchill who specifically asked that east German cities be bombed to create refugees and spread havoc. Interestingly, although claiming Dresden was an unfortunate victim of circumstance, Davis argues such was not the case for Berlin. He maintains Spaatz placed the German capital in a different category, ordering attacks on "city center" and employing the maximum number of incendiary bombs. As a result, the USSTAF's attacks on Berlin were largely indistinguishable from the area attacks of Bomber Command.

Overall, Davis provides much detail and excellent insight into how Spaatz led and managed the American air effort in Europe and how he increased the magnitude of air attacks and made it both efficient and effective at destroying its assigned targets. If there is a shortcoming, it is Davis's inability to explain clearly how Spaatz and his staff selected targets, what specific effect they were trying to achieve (collapse of morale, revolt, decrease in production, loss of fighting spirit at the front, etc.), and how they measured success. Davis argues strenuously that oil was the key target and Spaatz was correct in singling it out, but he provides no cogent logic or analysis to support this contention. Nonetheless, this is an outstanding book—perhaps the best, though partial, biography of an airman written to date. It sets a high standard by which other biographies should be measured.

One of the more accomplished air planners and staff officers in Air Force history was **Laurence S. Kuter**. On the faculty of the Air Corps Tactical School from 1935 to 1939, Kuter was a staunch strategic bombardment advocate. In 1941 he was one of four officers tasked to write Air War Plans Division (AWPD)-1, *Munitions Requirements of the Army Air Force*, the seminal war plan that served as the blueprint for the air assault on Germany. Promotion followed quickly. The youngest general officer in the Army in 1942, he served on the War Department staff and Arnold's staff, commanded a bomb wing in England, was deputy commander of the Northwest African Tactical Air Force, then returned to Washington for the rest of the war, even representing the AAF at the Yalta conference in 1945 during Arnold's illness. After the war he again served on the Air Staff, headed the Military Air Transport Service during the Berlin airlift, commanded Air University then Pacific Air Forces, and completed his career as a full general and commander of North American Air Defense Command. Kuter, along with his wife, had a deep sense of history and left behind an astounding collection of scrapbooks and papers covering his entire career. Located in the Special Collections Branch of the Air Academy library in Colorado, this archive gives a remarkable picture of life in the Air Corps during the 1930s, while shedding light on all other facets of the Air Force over a 40-year period.

Kuter's collection includes an autobiography that covers his life up to mid-1943. It is unfortunate this memoir was not completed because it provides a very interesting look into Kuter's life at West Point, as a junior officer in a flying squadron, and during his hectic days in Washington at the start of World War II. Included are very interesting character sketches of contemporary airmen who would later achieve high rank. Of interest, Kuter's own somewhat controversial personality comes through in these pages. His extremely rapid promotion raised many eyebrows in the AAF. In addition, Arnold often sent him on troubleshooting tours around the world. He was a trenchant observer, and few local commanders liked what he reported back to Arnold. As a consequence, Kuter was held by many airmen with a mixture of fear, awe, and resentment. His unfinished manuscript, some 300 pages, is most interesting; we can only regret it was never finished.

Because of Hap Arnold's illness—one of his five heart attacks—then-Major General Kuter was designated to attend the Allied conference at Yalta in February 1945 as the AAF representative. Kuter tells this story in *Airman at Yalta* (New York: Duell, Sloan, and Pearce, 1955). The title is not an accurate

description of the books contents. Most of this work covers the preliminary meetings in Britain and on Malta prior to the main event in the Crimea. Barely 10 percent of the book actually deals with Yalta, and much of that is spent on unimportant protocol details. Moreover, the actual air discussions between Kuter and representatives from the Royal Air Force and the Red Air Force proved completely fruitless. The Americans had hoped to establish a communication system to coordinate the air efforts of the three countries to avoid the danger of fratricide. In addition, the US pushed for an agreement to site B-29 bases near Vladivostok from which to bomb Japan. With the end of the war in Europe approaching, however, the Soviets had little incentive to be agreeable: they rejected both proposals. Overall, this book misses badly; it contains too little real insights into air strategy, while too much time is spent describing the fare at the seemingly endless stream of formal dinners during the conference.

George C. Kenney was America's top airman in the Pacific theater during World War II. Kenney had served as a fighter pilot in the First World War, downing two German aircraft and winning the Distinguished Service Cross. Between the wars he attended Command and General Staff College and the Army War College and then taught at the Air Corps Tactical School. He also earned a reputation as an accomplished engineer through assign ments at Wright Field and became recognized as an expert in tactical aviation. Significantly, he was serving as an air attaché to Paris during the German invasion of France in 1940 and witnessed the effectiveness of airpower in that campaign. Soon after Pearl Harbor, Kenney was selected by Arnold to become Douglas MacArthur's air deputy. For the rest of the war the short, fiery, and tireless Kenney served as commander of the Fifth Air Force and then Far East Air Forces under the difficult and demanding MacArthur. His success in such battles as Bismarck Sea, Rabaul, Wewak, and the Philippine campaign were dramatic, and he has become the prototype for the modern concept of an "air component commander," the one individual in charge of all aviation assets in a theater. Kenney's grasp of what is today called "operational art" and how airpower could be used to complement the operations of land and sea forces was outstanding, and he was considered by many to be the most accomplished combat air strategist of the war. In April 1945 he was promoted to full general—one of only four airman holding that rank during the war. However, he never seemed to hold Arnold's complete confidence as did Spaatz, and when B-29s were deployed to the Pacific theater at the end

of 1944, they were not assigned to Kenney, but instead were commanded directly from Washington. This attitude was reinforced after the war when Spaatz was named Arnold's successor and was confirmed when Hoyt Vandenberg—nine years younger than Kenney—replaced Spaatz as chief of staff in 1948. Kenney was instead given command of the new Strategic Air Command (SAC) after the war, but because he seemed more interested in dabbling in politics, his performance was poor. When the Berlin Crisis of 1948 broke out, Vandenberg conducted an investigation of SAC's war readiness. The results were unacceptable, so Vandenberg relieved Kenney and replaced him with Curtis LeMay. Kenney was then named commander of Air University. He retired from that position in 1951.

Kenney wrote one of the more interesting memoirs of the war, *General Kenney Reports: A Personal History of the Pacific War* (New York: Duell, Sloan, and Pearce, 1949). His aggressive and somewhat flamboyant personality is clearly revealed in these pages, and it is apparent why Kenney was popular with both his subordinates and with MacArthur. Believing that a commander's first responsibility was to his troops, Kenney worked hard to ensure his men had adequate housing and food, but also recognized that it was largely intangible factors such as pride and recognition of a job well done that was the greatest motivator. In addition, because the Southwest Pacific was considered a minor theater compared to Europe and even the Central Pacific, Kenney was forced to improvise and do more with less throughout the war. His ability to squeeze effective combat results out of a small force at the end of a 10-thousand-mile supply line was remarkable.

Kenney's ideas on airpower employment are also apparent in these pages. First and foremost he believed in the necessity of air superiority. Repeatedly he lectured MacArthur and other surface commanders on the need to destroy Japanese airpower and then establish bases within range of projected allied operations. At the same time he was an ingenious and clever tactical innovator. He was largely responsible for such successes as the combat use of the parafrag bomb, skip-bombing techniques, and "commerce destroyers"—B-25s armed with eight machine guns and heavy cannons for use against enemy ships and troop airlift. On the other hand, it was precisely this ability as a tactician that made him suspect among strategic bombing advocates like Arnold. When B-29s were due to arrive in-theater in late 1944, Kenney argued they would be most effective against Japanese targets in the East Indies, such as oil refineries, that would assist MacArthur in his drive northward. Arnold, however, wanted the heavy bombers to strike directly at Japanese industry in the home islands, not in an interdiction campaign supporting the Army. In a sense, Kenney's close relationship with MacArthur thus had a negative impact on his standing within the AAF. This standing was further eroded by Kenney's forays into presidential politics. In April 1943 Kenney met with Senator Arthur Vandenberg (the general's uncle), who was one of

the leading Republicans in the country, to discuss a MacArthur presidential candidacy in 1944. Arnold undoubtedly knew of these discussions and could not have welcomed them. As a consequence, when the Twentieth Air Force was sent to the Pacific, Arnold took the unprecedented step of commanding it personally from Washington. After the German surrender, Arnold still did not grant control of the B-29s to Kenney, but instead sent Spaatz to the Pacific as the commander of all strategic air units.

Certainly, Kenney's calculated efforts to portray himself as the ragged, rugged warrior who worked hard, played hard, and got results in the face of adversity wears a bit thin as the book progresses. His overt racism—evidenced by such statements as, "Nips are just vermin to be exterminated,"—is also surprising to modern ears. In addition, Kenney's unalloyed affection and admiration for MacArthur and all his works give the impression one is reading a press release for the famous general. Nonetheless, despite his shortcomings, Kenney was an outstanding combat commander, and this memoir gives a wonderful view of the unique difficulties encountered in the Pacific war. Airpower played an enormously important role in this theater, and Kenney's part in its success is clearly shown here. This book is must reading for all airmen.

Donald Wilson played a relatively minor role in World War II, serving as George Kenney's chief of staff for nearly two years. More important in some respects, he was also an instructor at the Air Corps Tactical School in the early 1930s when the doctrine of American airpower was being codified. Wilson tells his story in his privately printed and somewhat eccentric memoirs titled, *Wooing Peponi: My Odyssey Thru Many Years* (Carmel, Calif.: Angel Press, 1973). Wilson fancied himself a philosopher, so there are discourses here on life, education, politics, war strategy, and automobiles. (Incidentally, peponi is allegedly a Swahili term for paradise, so Wilson is chronicling his search for it.) Unfortunately, his coverage of his years at the Air Corps Tactical School is self-serving and egotistical: Wilson claims sole credit for devising the doctrine used by the AAF in World War II, and he is obviously quite irritated at not having received due credit for his ideas. On the other hand, his description of military life during the interwar years is quite interesting—the moves, the often spartan living conditions, the camaraderie and naiveté bordering on childishness exhibited by the early aviators regarding weather and navigation techniques, etc. It is truly amazing how many Air Corps pi-

lots crash-landed or were lost because they forgot their maps, followed railroad tracks into box canyons, or failed to check the weather before takeoff. Wilson therefore provides an interesting portrait of a bygone age.

Another of the major players in the formulation of doctrine at the Air Corps Tactical School was **Kenneth N. Walker**, who served as a bombardment instructor during the crucial years from 1929 to 1934. Walker was the epitome of the strategic thinkers at the school, and it was his famous statement in one of his lectures that set the tone for these beliefs: "The well-organized, well-planned, and well-flown air force attack will constitute an offensive that cannot be stopped." He pushed this theory with a vehemence and stubbornness that rivaled Chennaults contrary point of view. The AAF benefited and suffered from the attitudes and personalities of both men.

In August 1941 Walker and three colleagues (Hal George, Larry Kuter, and "Possum" Hansell) put together AWPD-1. Soon after, Walker was sent to the Pacific. George Kenney wanted Walker as his bomb commander because of Walker's intensity and single-mindedness. Walker was tireless and drove himself so hard Kenney feared he would snap and have to be sent home. Instead, contrary to orders, Walker led a bombing strike on Rabaul on 5 January 1943 and was shot down. For his courage and self- sacrifice, he was awarded the Medal of Honor, posthumously.

Martha Byrd, Chennault's most successful biographer, has written a manuscript that outlines Walker's short, but significant, career. Unfortunately, Byrd died before completing the study. What she left behind was a readable portrait of a driven man who was not only an accomplished and dedicated professional, but was also vain, ambitious, and inflexible. Byrd's study lacks, however, a contextual basis that explains fully the role of doctrine, the ACTS's part in formulating doctrine, and Walker's influence at the school. In addition, Byrd did not adequately flesh out her subjects tour at the V Bomber Command. The opening year of the Pacific air war was plagued by shortages of men and materiel, and the overall strategy for defeating Japan was not yet clear. Walker's role in those crucial months could therefore have been pivotal and needs further exploration.

As a result of these shortcomings, Air University has plans for Lt Col Peter R. Faber, a professor in the School of Advanced Airpower Studies, to edit Byrd's manuscript and to add chapters that provide the requisite context. The finished product will then be published by Air University Press. The draft promises that the book will be worth the wait.

There was another man who taught strategic bombardment theory at the Air Corps Tactical School and later served as a planner and commander in World War II. **Haywood S. Hansell, Jr**., or "Possum" as he was known to his friends, joined the Air Corps in 1928. After flying for five years, he attended the tactical school as a student and remained there as a faculty member. Although he joined the "bomber clique" at Maxwell, he was also an excellent pilot, and Claire Chennault chose Hansell as a member of his acrobatic team. When war broke out in Europe, Hansell was assigned to the Air Staff and was responsible for setting up the air intelligence section. In August 1941 he was one of four officers to write AWPD-1. The following year he played a major role in updating this plan, called AWPD-42, *Requirements for Air Ascendancy*, while also serving as a bomb division commander in the Eighth Air Force. After the Casablanca conference of January 1943, Hansell was tasked to draw up a plan for the Combined Bomber Offensive. Thus, he played a key role in all three of the major strategic air plans used against Germany.

Upon returning to the Air Staff in Washington, Hansell was near at hand when Arnold formed the Twentieth Air Force, consisting of the first operational B-29s. Although stationed thousands of miles away, Arnold chose to command the Twentieth himself—to keep the new bombers out of the unenlightened hands of the Army and Navy commanders in the Pacific. Hansell was appointed chief of staff of the Twentieth, but because of Arnold's other duties and his chronically poor health, Hansell became de facto commander of the new air force. His role became more direct in October 1944 when he was sent to the Marianas to head the XXI Bomber Command. His position there was almost hopeless. The new B-29s were having severe teething troubles—the weather was abysmal, the distances enormous, the supply lines slow and sporadic, and all the while there were impatient demands for greater results emanating from Arnold. In an attempt to spur Hansell to more creative tactics that would produce greater damage to the Japanese war industry, he was advised to abandon his attempts at high-altitude precision bombing and instead opt for low-level area attacks that employed incendiaries. He refused. His patience—never copious in the best of circumstances—at an end,

Arnold relieved Hansell in January 1945 and replaced him with Curtis LeMay. Hansell returned to the States, served briefly as a base commander in Arizona, and retired in 1946.

Hansell tells his life in two volumes that were privately printed. The first, *The Air Plan that Defeated Hitler* (Atlanta, Ga.: Higgins-McArthur/Longino and Porter, 1972), relates his years at the tactical school and then his combat experience in Europe. The second volume, *Strategic Air War against Japan* (Maxwell AFB, Ala.: Air War College, 1980), covers Hansell's experiences as chief of staff of the Twentieth Air Force then as commander of XXI Bomber Command. (In 1986 the Air Force History Office revised and combined these two volumes into The *Strategic Air War against Germany and Japan: A Memoir* [Washington, D.C.: Office of Air Force History, 1986].) Hansell believed passionately in the concept of daylight, strategic, precision bombing of industrial systems. He helped formulate this doctrine, then implement it in war. He remained committed to it, even when certain aspects were proved wanting. Significantly, Hansell argues that a sustained air attack could have brought Germany to its knees prior to Operation Overlord, but "diversions" constantly thrown in the path of the Eighth Air Force prevented this concentrated campaign from being carried out: the battle against the submarine, the invasions of North Africa, then Sicily, then Italy, then Normandy, and the destruction of the German V-1 and V-2 rocket sites. This is a politically naive view. The Battle of the Atlantic and the destruction of the V-sites were strategic requirements of the first order. Our closest ally was in dire straits; we had to act. In addition, airpower was absolutely essential for any of these amphibious landings to succeed; troops could not be left to be slaughtered on the beaches. Although Hansell questions the utility of such landings, he forgets the life and death struggle occurring on the Eastern Front. Stalin demanded a second front, and the fate of the Grand Alliance—and thus ultimate victory—depended on Britain and the US opening such a front.

Nonetheless, Hansell's account is one of the most articulate regarding the development of strategic bombing doctrine and practice. One can argue with his postulates and conclusions, but the arguments are clear and stark. This is the best defense of American airpower doctrine during World War II yet written.

Hansell's only biographer is Charles R. Griffith, "The Quest: Haywood Hansell and American Strategic Bombing in World War II" (PhD dissertation, Tennessee, 1994). Unfortunately, this is a poor effort. Griffith relies far too heavily on a few secondary sources (mostly the official history), Hansell's memoirs, and interviews with family members. Almost no archival material is used to examine the assumptions behind AWPD-1 and AWPD-42, or Hansell's role in shaping American strategy in the Combined Bomber Offensive. Clearly, Griffith feels Hansell was seriously wronged by several colleagues—Arnold, LeMay, Larry Norstad, and Rosie O'Donnell—who simply did not under-

stand airpower. It is indicative of the author's slant that he reminds the reader on several occasions that Arnold never attended ACTS, while the other three men mentioned only went through the "short course" of 1939. As a consequence, they were all "pragmatic" airmen who had not been properly "indoctrinated" with the gospel of strategic airpower as had Hansell. Thus, although Hansell was "totally committed" to the doctrine he had helped formulate at Maxwell Field, his colleagues were more interested in results in battle. Griffith seems to see Hansell's position as appropriate. Unwittingly therefore, the author gives us a portrait of a man who lost sight of the distinction between doctrine and dogma and who lost his career as a consequence.

Ennis Whitehead is another of the largely forgotten figures of American airpower, although he played an important role at an important time. Enlisting in the Army in 1917, Whitehead quickly joined the Air Service, won his wings, and was sent to France. He was an excellent pilot, but as a result he was made a test pilot and thus saw no combat. After the war, his reputation as an aviator grew within the small coterie of military airmen: he participated in Billy Mitchell's bombing tests against the *Ostfriesland* in 1921, joined the Pan American flight of 1927—where he narrowly escaped death in a midair collision over Buenos Aires—and set a speed record from Miami to Panama in 1931. When war came, he was sent to the Pacific where he became George Kenney's strong right arm. Whitehead stayed in Asia for the next seven years, becoming commander of the Fifth Air Force in 1944; and after Kenney left the theater, he took over the Far East Air Forces. Returning to the States in 1949, Whitehead commanded the short-lived Continental Air Command and then the Air Defense Command until his retirement in 1951.

His story is told by Donald M. Goldstein in "Ennis C. Whitehead: Aerospace Commander and Pioneer" (PhD dissertation, University of Denver, 1970). Goldstein, who later went on to edit the immensely popular histories begun by the late Gordon Prange, argues that Whitehead was a tactical genius and the brains behind such stunning air victories as Wewak, Rabaul, Gloucester, and Bismarck Sea. In addition, although Kenney has received credit for such innovations as skip-bombing, parafrag bombs, nose cannons in medium bombers, and the use of mass troop transport, Goldstein argues that it was Whitehead who actually pioneered them. The research here is

impressive, but he is unable to do more than assert his points rather than prove them. Unquestionably, Whitehead was an outstanding tactician who performed extremely well in the Southwest Pacific theater, but attempting to pinpoint credit is generally far more difficult than assigning blame. Victory does have a thousand fathers. In addition, Goldstein repeatedly states that Whitehead was an outstanding planner, but it is not explained precisely what this means: how did he actually go about the crucial business of determining objectives, allocating resources, anticipating enemy counters, and measuring results? Whitehead himself emerges in this portrait as a hard, uncompromising man with a heavy twinge of anti-Semitism and chauvinism; he was a good combat commander who engendered respect rather than admiration among his subordinates. He was also seen by some in the Air Force hierarchy as too attached to Kenney and MacArthur, too political, too outspoken, and too tactically focused. He was disgusted by the appointment of Hoyt Vandenberg rather than Kenney as chief of staff in 1948 and was outraged when the new chief quickly relieved Kenney as commander of Strategic Air Command. Reputedly, he also resented not being named vice-chief of staff or receiving a fourth star. These feelings, combined with ill health, caused him to tender his resignation in early 1951. Despite Goldstein's obvious and exaggerated affection for his subject, this is a very solid piece of scholarship

One of the more well-traveled airmen of the Second World War was **Lewis H. Brereton**. A graduate of the Naval Academy, he had served on Billy Mitchell's staff during and after World War I and rose steadily through the ranks in the years thereafter. At the time of Pearl Harbor he was commander of the Far East Air Forces—such as they were—under MacArthur. When that command collapsed a few months later, he was sent to India to command the Tenth Air Force, and thence to Egypt to head the Ninth Air Force. In 1943 he took the Ninth to England in preparation for the Overlord invasion, and in August 1944 he was selected to lead the First Allied Airborne Army for Operation Market Garden. After the war, Lieutenant General Brereton was a senior military advisor to the Atomic Energy Commission until his retirement in 1948. He was a key figure in several important events of the war including the destruction of his air force at Clark Field, the fall of Burma, the British success at El Alamein, the low-level strike on Ploesti in August 1943, D day, and "a bridge too far" at Arnhem. He recounts his experiences in *The Brereton Diaries* (New York: W. Morrow and Co., 1946).

Unfortunately, this is not an enlightening account. Brereton tells us in the preface that he began thinking of publishing his diaries in 1942. As a result, one is left with the strong suspicion that he is reading an account written not only after the event, but with an eye to how they would look in print sometime in the future. Frankly, there is much unimportant detail in this memoir but little real insight into air strategy or command problems. For example, the severe personality conflicts between Allied leaders at the time of D day are barely hinted at, and the enormous struggle over targeting priorities at the same time that nearly caused both Eisenhower and Spaatz to resign in protest are not even mentioned. Overall, this is an unsatisfactory account of little value.

Like Brereton, **Hugh J. Knerr** was a graduate of the Naval Academy who transferred to the Army so he could be a pilot. Knerr made the change after three years, joining the Army in 1911 as an artillery officer and finally wrangling a pilot training slot in 1917. Over the next two decades he flew observation and bombardment aircraft, while also acquiring a reputation as an excellent administrator. As a result, when the GHQ Air Force was formed in 1935, its commander, Frank Andrews, selected Knerr as his chief of staff. Unfortunately, Knerr also had a reputation as an outspoken advocate of strategic airpower. As a result, in 1939 he was banished to Fort Sam Houston in San Antonio, to the same position occupied by Billy Mitchell the previous decade. Knerr chose to retire. When war broke out, however, he was brought back on active duty and sent to Europe as the Eighth Air Forces deputy commander for administration. He retired again after the war, but due to a scandal involving a senior officer, he was activated once again in 1947 and became the first inspector general of the Air Force. He retired a third time in 1949.

Knerr wrote an unpublished memoir titled, “The Vital Era, 1887–1950,” that can be seen in the Air Force Academy’s Special Collections Branch of the library. In truth, this work is not overly useful. There is no indication here of the fire which drove Knerr out of the service on two occasions. He was well known as a strong supporter of Frank Andrews over Hap Arnold, but there is no mention of that affinity here. Although he was praised for his outstanding work administering and supplying the American bomber forces in England, he scarcely discusses how he achieved such successes. Instead, we have a barely

interesting memoir of anecdotes, stories, and opinions with little insight or analysis.

One of the more noted tactical airmen in World War II was **Elwood R. Quesada.** Flamboyant and handsome, "Pete" entered the Air Service in 1924 and upon winning his wings, lived a most unusual life as a junior officer, serving as the personal pilot for the Chief of the Air Corps, Assistant Secretary of War, Secretary of War, George Marshall when the future five-star was a colonel at Ft Benning, and the Ambassador to Cuba. Such activities made him unusually politically well-connected and served him in good stead in the years ahead. In addition, in 1929 he joined Carl Spaatz and Ira Eaker on the famous "Question Mark" flight over San Diego.

After a stint on Hap Arnold's staff, he was named commander of an air defense group on Long Island in July 1941. He took his group to North Africa in 1943 as a brigadier general, and was soon named deputy commander of the Coastal Air Force, which was responsible for defending the Allied ports against Luftwaffe attacks and interdicting enemy shipping in the Mediterranean. After some initial difficulties with his British superior, Quesada settled down and performed well. As a result, in late 1943 he was sent to England as head of the IX Fighter Command in preparation for the Normandy invasion. For the three months prior to D-Day his aircraft flew escort missions for the heavy bombers of the Eighth Air Force, and bombed bridges, rail yards and enemy fortifications in western France. When the Allies landed, Quesada's fighterbombers worked closely with ground forces in the drive across France and into Germany. His reputation grew, and by the end of the war he had become a major general and was widely recognized as a tactical air expert. After the war he took over Tactical Air Command and given a third star. But in the financial austerity of the Truman era, Air Force leaders decided to downsize TAC, combining it with Air Defense Command to form Continental Air Command. Quesda was nudged out. After a series of unremarkable assignments that included command of atomic bomb tests at Eniwetok, Quesada retired in 1951, bitter at what he considered poor treatment by the Air Force.

The only biography of Quesada is by Thomas Alexander Hughes, *Over Lord: General Pete Quesada and the Triumph of Tactical Air Power in World War II (NY:* Free Press, 1995). Unfortunately, despite an enormous amount of primary research, Hughes allowed himself to become too close to his subject; moreover, his bias against strategic airpower distorts his story and lessens its usefulness. Part of the problem lies in the common tendency of the biographer to inflate the role and importance of his subject, while denigrating or ignoring the other players involved. Hughes is perhaps a bit more guilty of this than most, but the real flaw is the numerous gratuitous slaps at strategic bombing that detract from the seriousness of the work. One such example is the author's treatment of "Big Week"--the period in mid-February 1944 when

a maximum effort by the Eighth Air Force broke the back of the Luftwaffe. The implications of Big Week--the Allies achieved permanent air superiority over the Continent--were profound. Yet Hughes dismisses this momentous event by referring to it as merely a "limited achievement." Similarly, Hughes describes how bomber commanders had resisted efforts to use the heavies en masse to blast through prepared German positions, because this technique smacked of the massed artillery barrages of the First World War. These barrages not only destroyed the element of surprise, they also destroyed the terrain so totally it was virtually impossible for ground troops to move quickly through the area. Nonetheless the ground commanders insisted, so the Eighth Air Force was employed at St. Lo, Aachen and elsewhere to carpet bomb the enemy positions. As the bomb commanders warned, the enemy was obliterated, but so was the ground. In a bizarre twist of logic, Hughes first accuses the airmen of not wanting to support the army, but then uses these same examples to demonstrate the alleged ineffectiveness of strategic airpower!

The truly fascinating question that Hughes does not address, is how Pete Quesada, with virtually no operational experience prior to the war and a stint in North Africa that focused on air defense and interdiction, could learn the intricacies of tactical air support so quickly and so effectively. Regrettably, the author sheds little light on this transformation. Instead, he portrays Quesada as a creative genius who pioneered a number of tactical devices that saw their first use in the months following D-Day. The truth is different. Most of the innovations Hughes lauds were devised previously by others, but these airmen--"Mary" Coningham and Jack Slessor of the RAF, Joe Cannon in North Africa and Italy, and George Kenney in the Pacific--are scarcely mentioned and given even less credit. It was they who introduced the concept of air-ground radio communications, forward air controllers, and collocated air and ground headquarters, all of which were adopted by Quesada in France.

What is so unfortunate about this is that it was unnecessary. Tactical airpower was unquestionably a decisive factor in Allied victory, and Pete Quesada was a recognized expert in applying that weapon. What was needed was a detailed analysis of how airpower assumed such dominance and Quesada's role in it. The facts should have been allowed to speak for themselves.

After an illustrious showing in World War II, **Hoyt S. Vandenberg** was named Air Force chief of staff in 1948, and in that position he played an important role in the significant events of his time: the formation of Strategic Air Command, unification of the armed services, formation of an independent air force, the Berlin airlift, the B-36/supercarrier contro-

versy with the Navy, the development of the hydrogen bomb, and the Korean War. Graduating from West Point in 1923, Vandenberg served as a fighter pilot for the next decade, becoming one of the Air Corps's outstanding fliers. When war broke out in Europe, he was assigned to the Air Staff in Washington as an air planner for the North African and Normandy invasions, as a diplomat in Moscow, chief of staff of the Twelfth Air Force, deputy commander of the Allied Expeditionary Air Forces, and commander of the Ninth Air Force, the largest tactical air unit in history. After the war, Vandenberg returned to Washington where, after brief stints on the Air Staff and as the War Department's intelligence chief, President Harry S Truman named him director of Central Intelligence. Returning to uniform in 1948, he became Spaatz's deputy and won a fourth star. When Spaatz retired, Vandenberg was named chief of staff, a position he held for over five years.

His life is told in my work, *Hoyt S. Vandenberg: The Life of a General* (Bloomington, Ind.: Indiana University Press,1989). I concluded that Vandenberg was an exceptionally well-rounded officer: an outstanding pilot, accomplished planner and staff officer, effective commander, and passable diplomat. Moreover, his personality was one of his greatest strengths; he made very few enemies. In short, he was the superb blend of leader and manager needed to get the new Air Force off the ground.

In retrospect, perhaps I underestimated his effectiveness as a member of the Joint Chiefs of Staff. After writing this book, I was assigned to the Air Staff at the Pentagon and saw for myself the extremely competitive environment existing among the services. As a consequence, I can now better understand the challenges facing an infant service led by such a youthful general. The fact that the Air Force not only survived but indeed thrived—receiving nearly half of the entire Defense budget by 1953—is a clear tribute to Vandenberg's exceptional political and organizational skills.

There are two other works on Vandenberg: dissertations by Jon A. Reynolds, "Education and Training for High Command: Hoyt S. Vandenberg's Early Career," Duke University, 1980; and Robert L. Smith, "The Influence of USAF Chief of Staff General Hoyt S. Vandenberg on United States National Security Policy," American University, 1965. Reynolds takes an interesting approach, studying the early career of a future general. Although little personal documentation is left from Vandenberg's early life, Reynolds did an in-depth examination of the operational units that Vandenberg was assigned to during the interwar years. This was not only an invaluable foundation to my own study, but allowed him to construct a portrait of what life was like for a junior officer during the Roaring Twenties and the Great Depression.

Smith's study concentrates on Vandenberg's tenure as chief. His purpose (he is a political scientist, not a historian) is to explore the general's

role in the formulation of national security policy. Relying heavily on congressional testimony, Smith concludes that Vandenberg was extremely effective in selling not only the public, but also Congress, on the idea of airpower as the first line of American defense.

A minor figure who nevertheless played a role in some key events in airpower history was **Orvil A. Anderson**. Entering the Air Service during the First World War, Anderson gained fame as one of the top balloonists in the country. In fact, he achieved an altitude record for balloons in 1935 that lasted for 22 years and which won him both the Harmon and Mackay trophies. After converting to airplanes and flying for several years, Anderson was assigned to the plans division on the Air Staff. In 1943 he moved to England to become the chief planner of the Eighth Air Force; the following year he was promoted to major general and made director of operations for the Eighth. As the war in Europe was drawing to a close, he was chosen as the senior military advisor to the US Strategic Bombing Survey for both the European and Pacific divisions. In this capacity he had a number of heated arguments with the Navy over who played the more important role in the defeat of Japan. In late 1946 he was named the first commandant of the new Air War College at Maxwell Field. He could not control either his temper or his tongue, however, and this problem became apparent in 1950. Soon after the outbreak of the Korean War, Anderson told a newspaper reporter that Russia was clearly behind the invasion of South Korea and that given the order he would be willing to wipe out Russia with atomic strikes within a week. Because inappropriate statements had been made only a few days before by Douglas MacArthur and the secretary of the Navy—earning rebukes from President Truman—Anderson's comments were especially inopportune. Within days he was relieved of his command and pushed into retirement. In the atomic age, loose cannons were most unwelcome. John H. Scrivner's "Pioneer Into Space: A Biography of Major General Orvil Arson Anderson" (PhD dissertation, Oklahoma, 1971), relates the life of this outspoken airman who epitomized the "cold warriors" spawned in the aftermath of World War II. This sympathetic and workmanlike account is of interest in telling the story of a man whose retirement was in some ways more important than his career.

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Howard A. Craig, known as "Pinky" throughout his career, was another of the solid and dependable airmen who entered the service during the First World War, stuck with it through the lean years of the next two decades, rose to high rank during the Second World War, and then helped shape the new era and the new Air Force that followed. Craig was a bomber pilot during the interwar years—he participated in Mitchell's bombing of the battleships in 1923—and in 1941 joined the Air War Plans Division in Washington. He helped plan the North African invasion, then stayed on to command a fighter group in Tunisia. Returning to the Air Staff in 1943, he led the operations and requirements division, then was moved to the War Department general staff where he won a second star. After the war he headed the Alaskan Command for two years—a difficult tour marked by harsh operational conditions and low priority—and was promoted to lieutenant general. In 1947 Craig was named deputy chief of staff for materiel in the new Air Force. Following a brief stint as the inspector general, Craig was appointed commander of the National War College in 1952. He retired from that position in 1955.

After his death, Craig's memoirs were edited by Dale L. Walker and published as *Sunward I've Climbed: A Personal Narrative of Peace and War* (El Paso, Tex.: Texas Western Press, 1975). Like many such efforts that are written late in life, Craig recalls his earlier experiences more clearly and more fondly than the later ones. In this case, that is a plus because the author's memories of his life as a junior officer are both interesting and entertaining. In 1909 he saw his first aircraft on the beach at Atlantic City; the pilot, who actually offered him a free ride, was the noted pioneer aviator Walter Brookins. Craig was infected with the aviation bug that summer and never recovered. His account of life in the Air Corps is one of the best, relating a disturbing number of plane crashes brought on by poorly maintained and outmoded equipment and insufficient training that is a revealing portrait of garrison life in peacetime. Missing, however, is a discussion of the many problems faced by the new Air Force after achieving its independence in 1947. Pinky Craig, not one of our more famous airmen, was nonetheless a reliable and highly capable professional who served his country well. His memoirs are well worth reading.

Frank Armstrong had the distinction of serving as the role model for the best-selling novel, movie, and television series, "Twelve O'Clock High." Although a professional baseball player, he gave up the diamond for the cockpit in 1929. He flew a variety of aircraft over the next decade, and in 1942 joined the Eighth Air Force, first as an operations officer at headquarters and

then as a bomb group commander. He led his group on the first American B-17 strike of the war against the Axis (Rouen on 17 August 1942), and in January 1943 led his group again for the first American mission against a target inside Germany. It was these experiences that led to his portrayal as Brig Gen Frank Savage. After tours stateside, Armstrong returned to combat as a B-29 wing commander in the Pacific. Following the war he taught at the Armed Forces Staff College, commanded a base, an air division, and a numbered air force, and in 1956 pinned on his third star to take over Alaskan Command. Believing his command was being shortchanged in defense matters, he retired in anger in 1961.

Armstrong wrote two memoirs. The first was a diary recounting his experiences in the Eighth Air Force titled, "So Near Heaven, Surrounded by Hell." The style is a bit breathless and exuberant, but his intent is to memorialize the brave bomber crews who fought over Germany against heavy odds. His description of the mission over Wilhemshaven in 1943—the first for the B-17s against a target in Germany—is especially interesting.

After retirement Armstrong wrote his life story, "Awake the Sleeping Giant." Like his first effort, this has not been published, and both manuscripts are located in the library of East Carolina University in Greenville, North Carolina. (Copies of "So Near Heaven" are also located in the archives at Maxwell Air Force Base and the Air Force Academy.)

The most accomplished intelligence officer in Air Force history was probably **Charles P. Cabell**. After graduating from West Point in 1925, Cabell flew observation and fighter aircraft for the next decade, while also becoming well known as a photoreconnaissance expert. During the London blitz, he was sent to Britain to study Royal Air Force (RAF) photo-interpretation procedures, and his subsequent report greatly impressed his superiors. As a result, Hap Arnold formed an "advisory council" in early 1942 that initially consisted of only two people, Lauris Norstad and Cabell. Their task was to perform "blue sky thinking" and any special projects Arnold threw their way. Often referred to as the "brain trust," the council played an important role in Arnold's somewhat anarchic management style. In 1943 Cabell was sent to England to command a bomb wing, and thence to the Mediterranean to serve as Ira Eaker's chief of intelligence. During the last year of the war, he had fairly extensive dealings with the Soviets over events in the Balkans and soon earned a healthy respect and distrust for them. After the war he served briefly on the US delegation to

the United Nations discussions in London and then returned to the States in 1948 to become the deputy chief of staff for intelligence for the Air Force as a major general. After two years he became the director of the joint staff as a three-star, and in 1953 he was named the deputy director of the Central Intelligence Agency. He remained in that position as a full general until his retirement in 1962.

Cabell wrote a very detailed and interesting autobiography titled "Memoirs of an Unidentified Aide," which is located in the Air Force historical archives at Maxwell AFB, Alabama (although family permission is required to quote from the manuscript). Throughout, Cabell takes pains to describe the people he serves with, providing excellent personality sketches of such men as Arthur Tedder, Trafford Leigh-Mallory, George Patton, Carl Spaatz, and Ira Eaker. Also of interest is his discussion of the oil campaign conducted by the strategic air forces in 1944–45. This issue caused a great deal of controversy then and since, and Cabell's treatment is insightful. So too is his explanation of the need for a special type of air intelligence that was fundamentally different from that traditionally required by surface forces. A new organization was needed to gather, analyze, and disseminate this new type of air intelligence; Cabell was instrumental in performing that role. Overall, this is an excellent memoir that deserves to be published.

Nathan F. Twining succeeded Vandenberg as Air Force chief and was then named chairman of the Joint Chiefs of Staff, the first airman to hold that position. Twining came from a rich military background; his forebears had served in the American Army and Navy since the French and Indian War. Nathan himself enlisted in World War I but soon received an appointment to West Point. Because the program was shortened so as to produce more officers for combat, he spent only two years at the academy. After graduating in 1919 and serving in the infantry for three years, he transferred to the Air Service. Over the next 15 years he flew fighter aircraft in Texas, Louisiana, and Hawaii, while also attending the Air Corps Tactical School and the Command and General Staff College. When war broke out in Europe he was assigned to the operations division on the Air Staff; then in 1942 he was sent to the South Pacific where he became chief of staff of the Allied air forces in that area. In January 1943 he assumed command of the Thirteenth Air Force, and that same November he traveled across the world to take over the Fifteenth Air Force from Jimmy Doolittle. When Germany surrendered, Arnold sent Twining back to the Pacific to command

the B-29s of the Twentieth Air Force in the last push against Japan, but he was there only a short time when the atomic strikes ended the war. He returned to the States where he was named commander of the Air Materiel Command, and in 1947 he took over Alaskan Command. After three years there he was set to retire as a lieutenant general, but when Muir Fairchild, the vice-chief of staff, died unexpectedly of a heart attack, Twining was elevated to full general and named his successor. When Vandenberg retired in mid-1953, Twining was selected as chief; during his tenure, massive retaliation based on airpower became the national strategy. In 1957 President Eisenhower appointed Twining chairman of the Joint Chiefs.

Surprisingly, the only biography of this famous airman is a dissertation that covers his career up to 1953, and that effort is disappointing: J. Britt McCarley, "General Nathan Farragut Twining: The Making of a Disciple of American Strategic Air Power, 1897–1953" (Philadelphia, Pa.: Temple University, 1989). This study is based largely on secondary sources, official histories, and interviews Twining gave many years after his retirement. As a consequence, McCarley's account provides little insight into Twining's personality, leadership, reasons for success, or his impact on the great events happening around him. In short, the man is lost in the description of events, and by the end of this study we know little more about Twining than if we had read his entry in *Who's Who*. It is not clear, for example, why Twining was chosen as vice-chief of staff in 1953; his performance in the five years after World War II was not impressive. Twining admitted he did not understand why he was given Air Materiel Command, and Alaskan Command was then considered a backwater. In fact, McCarley states the main attraction of this assignment was that it entailed "normal work hours" and allowed Twining plenty of time for hunting and fishing. There is a story here, and McCarley's argument that Twining was chosen because LeMay was unacceptable is inadequate. In addition, McCarley insists on referring to American air doctrine from the 1930s on as "Douhetian." This is incorrect; the tactical school barely knew of his ideas before World War II, and besides, Douhet advocated the destruction of enemy morale by attacking the population directly. The Air Corps Tactical School instead called for the collapse of an enemy's capability to wage war by targeting his industrial infrastructure. The two air strategies are therefore totally different, but McCarley seems not to realize this. Overall, a poor effort; the important story of Nate Twining remains to be told.

Curtis E. LeMay is one of the icons of American military history who ri-

vals Mitchell in his importance and controversial career. From middling origins, LeMay did not attend West Point, earning his commission through the Reserve Officer Training Corps in 1928. Over the next decade he became widely known as one of the best navigators and pilots in the Air Corps. In 1937 he located the battleship *Utah* in exercises off California and "bombed" it with water bombs, despite being given the wrong coordinates by Navy personnel; the following year he navigated B-17s nearly 800 miles over the Atlantic Ocean to intercept the Italian liner *Rex* to illustrate the ability of airpower to defend the American coasts; and in 1938 he led flights of B-17s to South America to display airpower's range and its role in hemisphere defense. War brought rapid promotion and increased responsibility. LeMay began as a group commander in the Eighth Air Force, but within 18 months had gone from lieutenant colonel to major general and an air division commander. He had earned a reputation as an unusually innovative tactician and problem solver, so when Hap Arnold had difficulty bringing the new B-29 into combat service, he chose LeMay to spur the program and then take over B-29 operations in China. His ability led Arnold to name him commander of the B-29s in the Marianas where the main air effort against Japan was centered. Always a tactical innovator, LeMay took the risky and controversial step of abandoning the long-held American doctrine of high-altitude, daylight, precision bombing, and instead stripped his B-29s of guns, loaded them with incendiaries, and sent them against Japanese cities at night and at low level. The new strategy was remarkably successful; Japan was devastated, and the dropping of the atomic bombs in August 1945 brought the Pacific war to an end without an invasion of the Japanese home islands and the hundreds of thousands of casualties that would have entailed.

Returning to the States, LeMay served briefly as the head of the AAF research and development effort, then was sent to Germany as commander of the air forces in Europe arrayed against the Soviets. In this position he was responsible for getting the Berlin airlift started in mid-1948 after the Soviets had instituted a ground blockade of the city. This crisis precipitated a major reshuffling in Washington. A war with the Soviets appeared increasingly possible, and the Strategic Air Command, which would bear the brunt of such a war, was seen as deficient. As a result, Hoyt Vandenberg relieved George Kenney from command at SAC and named LeMay his successor. The building of SAC into an effective and efficient war-fighting arm was LeMay's greatest accomplishment. The story of how he demonstrated his command's poor state of readiness by a "bombing raid" on Dayton, Ohio, in which not a single SAC aircraft carried out the mission as planned, is well known. He then set about the difficult but essential task of retraining SAC. Using the authority delegated him by Vandenberg, LeMay built new bases, facilities, and training programs; began a "spot promotion" system for rewarding his best aircrews; and, through his legendary use of iron discipline, soon transformed his command into one of the most effective military units in the world.

In 1957 LeMay was named vice-chief of staff, and when Thomas White retired in 1961, he was elevated to the position of chief. LeMay was one of the coldest of America's cold warriors, and partly for this reason his tenure as chief was neither successful nor happy. Under the new management policies of Defense Secretary Robert McNamara and the "flexible response" military strategy of Joint Chiefs of Staff chairman Gen Maxwell D. Taylor, LeMay found himself at constant odds. In his four years as chief, LeMay argued strenuously for new air weapons like the Skybolt missile and B-70 bomber, and against the swing-wing "fighter" plane, the General Dynamics TFX (later named the F-111). He lost all these battles. Moreover, LeMay had strong feelings regarding American involvement in Vietnam, arguing against the gradual response advocated by the administration. Once again he was ignored. When he retired in 1965, LeMay was widely regarded, and probably rightly so, as a great commander of SAC but as a poor chief. His abortive political "career" as George Wallace's running mate in the 1968 presidential election only further tarnished the reputation he had built as a war commander and leader of SAC.

LeMay's only biographer to date is Thomas M. Coffey, *Iron Eagle: The Turbulent Life of General Curtis LeMay* (New York: Crown Publishers, 1986). Like Coffey's work on Arnold discussed above, this book is based too much on interviews, newspaper reports, and published memoirs. The result is an entertaining account of a great man's life and career, but with little detail and serious analysis. Coffey is at his best in describing LeMay's personality: he was unsophisticated, taciturn, dedicated, tactless to the point of rudeness, more ambitious than he cared to admit, extremely hard working, and he possessed unquestioned physical courage. In addition, Coffey shows that LeMay was also a good family man and sincerely concerned (sensitive would be too strong a term) about the welfare of his troops—although the author implies this was more because happy subordinates were productive ones rather than through any feeling of innate humanitarianism.

This book fails, however, in revealing the details surrounding the events in which LeMay participated. The decision to reverse three decades of American airpower doctrine with incendiary attacks against Japanese cities raises profound questions of morality and legality. Coffey simply restates LeMay's rationale that all war is awful, and it was better to kill the Japanese than it was to kill Americans. There is something to be said for that point of view, but it is entirely too facile. Are there no limits whatever in warfare? Coffey would seem to imply so. More serious, there is no discussion of LeMay's role in the military strategy—or nonstrategy—of the Vietnam War. Unquestionably, the classification of sources was a problem here, but other than arguing that LeMay never said he wanted to "bomb Vietnam back into the stone age," Coffey does not take on this crucial but thorny subject. LeMay later stated vehemently that he disagreed with administration policy during the

war, but we are given no details on an alternative. How precisely would LeMay have fought the war? What targets did he intend to strike with airpower, and what effect did he expect those strikes to have? Did he think the Vietcong insurgency in the south would collapse if the leaders in the north were coerced into withdrawing their support? These are fundamental questions regarding the role of airpower in a "minor" war that are of great importance but which are not explored.

Similarly, LeMay's advocated doctrine is identified as the epitome of strategic bombing, but once again the implications of such a statement are not examined. We are given no insights into LeMay's theories of warfare and the role of airpower in modern war other than his belief that strategic bombing, and lots of it, would be decisive. Was LeMay's thinking truly that simplistic? Perhaps so, because it is unquestionably the case that tactical airpower dangerously atrophied during LeMay's tenure and that the Air Force as a whole became seriously unbalanced. One could argue that because of this overemphasis on SAC, the Air Force was woefully unprepared for Vietnam. Airpower was consequently so discredited that one could ask if LeMay actually hurt the cause of American airpower.

One of the more interesting and potentially significant issues that Coffey touches upon is LeMay's strained relations with both Defense Secretary McNamara and Air Force Secretary Eugene Zuckert. Clearly, LeMay believed that his prerogatives as chief and as military advisor were being undermined by these men. In fact, the long tenure of McNamara at Defense serves as a watershed in American military history. Prior to that time, military leaders had some latitude in discussing military affairs with Congress and, to some extent, the public. McNamara saw such a tradition as chaotic and moved to change it by placing constraints on what the chiefs could say and to whom. This is an important story, and although Coffey introduces it, he does not seem to realize its implications. Overall, Coffey gives us a useful read, but a more serious study of one of America's most important airmen is needed.

LeMay's autobiography, written with the help of novelist MacKinlay Kantor, is titled *Mission with LeMay: My Story* (Garden City, N.Y.: Doubleday, 1965). This is an engaging and well-written story. LeMay's abrupt, no-nonsense personality comes through clearly, and the book also provides an excellent insight into air leadership. LeMay was intelligent and physically courageous—two qualities generally cited as crucial for successful leadership—but the real reason for his sustained, outstanding performance was his insistence on following through on a job until its completion. His emphasis on rigorous training was relentless, and it was this dogged and selfless determination to practice and work hard that were the real reasons for his success. There is certainly a lesson here: great commanders are often made and not born.

Edwin W. Rawlings was in some ways indicative of the new Air Force generals that emerged after World War II. Although he had been an observation pilot before the war, he was then sent to Harvard Business School to learn the latest techniques regarding supply and inventory control. As a result, he was never able to secure a combat assignment, and his experience during the war was limited to materiel and supply. After the war he was named the first comptroller of the Air Force, and in that capacity was instrumental in introducing the first computers into the service. He finished his career in 1959 as a full general and commander of the Air Materiel Command. His privately printed autobiography, *Born to Fly* (Minneapolis, Minn.: Great Way Publishing, 1987), recounts these events, but is a disappointment. Quite simply, Rawlings waited too long to write his story, and as a result, his memory of the great events of his career are clouded. Instead, we have a series of anecdotes loosely strung together between a discussion of various fishing trips that provide little point or purpose.

Like Rodney Dangerfield, military airlift never gets any respect. Yet, it is the cargo planes and their crews that are often the first to respond in the event of a crisis. From George Kenney's use of troop transport in the Southwest Pacific, to the "Hump" operation over the Himalayas, the Berlin airlift, reinforcement of Khe Sanh, resupply of Israel in 1973, and the dropping of food packages in Bosnia, airlift has been a prime factor in American foreign policy. The father of airlift was **William H. Tunner**, and his autobiography, *Over the Hump* (New York: Duell, Sloan, and Pearce, 1964) is an excellent chronicle of this important airpower function.

Tunner begins by describing how in 1929 he was told to fly a Fokker trimotor from San Diego to Sacramento. He had never flown that type of plane before, had never seen an operator's manual, had no one available to explain the plane's systems or characteristics, had no weather forecasters around to brief him on the conditions en route, and had a Texaco road map as his only aeronautical chart. He made the flight without incident, but his

cavalier attitude towards flying at the time—so well depicted by this anecdote—had a profound effect on Tunner and his subsequent career. He was a systematic, organized, and careful pilot.

During World War II, Tunner was chief of the Ferrying Division of Air Transport Command and performed so well he was selected in 1944 to take charge of the Hump airlift over the Himalayas. Although his goal was efficiency, one of his prime concerns was safety: the units he was supplying wanted their planes and equipment in one piece and in good working order. The feats performed by the C-46s and C-54s flying supplies into China are the stuff of legend. After cutting his teeth over the Himalayas, Tunner was the obvious choice to direct the operation of the Berlin airlift in 1948–49. Upon arriving in Germany, he found well-meaning, hard-working, and dedicated individuals who were totally disorganized, knew little or nothing about major airlift operations, and were thus quite ineffective. He immediately brought order, installing flight schedules, precomputed flight plans, rigid air traffic control procedures, centralized weather briefings, statistical analyses to determine bottlenecks and problem areas, and strict guidelines for crews' flying times and rest schedules. The results were dramatic: tonnage rates soared and accident rates dropped. Tunner repeated such performances during the Korean War, and by the time of his retirement in 1960 as a lieutenant general, he had put the Military Air Transport Service (now Air Mobility Command) on a firm professional footing. One of his basic tenets was that airlift was different. Efficiency and safety were the keys to success, not risk taking and rugged individualism. Tunner's description of the challenges he faced in these operations and his method of dealing with them is insightful, to the point, and extremely interesting. Airlift is an often forgotten tool of peaceful airpower diplomacy, and he demonstrates this well. Missing from this account is evidence of the legendary temper Tunner was reported to have had. Nonetheless, this is an excellent book.

Because Colin Powell has served as the top military officer in the country and is mentioned as presidential timber, it is difficult for some to understand today that things were not always so with black Americans. At one point, only a few decades ago, the armed forces were not integrated. Although blacks served, they did so in specialized units, generally commanded by whites, and suffered discrimination not only in promotions, but even in fundamental human rights. We have come a long way, but it is useful to recall when such equality did not exist and racial discrimination was both pervasive and humiliating. During World War II, a group of blacks was sent to Tuskegee Institute in Alabama and trained as pilots. The famous

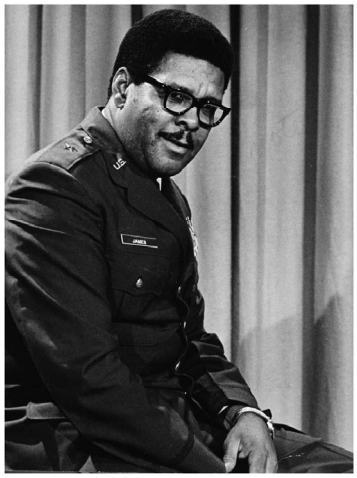
Tuskegee airmen went on to serve with distinction in the European theater and the years thereafter. The most famous of these men was **Benjamin O. Davis, Jr.**

Davis was the first black to graduate from West Point in this century. His four years there were not, however, pleasant. Because he was black, he was officially "silenced" by all cadets—no one spoke to him for four years except on official business; he roomed alone; he had no friends. That so many cadets, faculty members, and senior officers could allow such behavior is astonishing. This was surely one of the most shameful chapters in West Point history. Nonetheless, Davis graduated but was promptly turned down for pilot training—no black officers were allowed in the Air Corps. While he was serving in the infantry in 1940, this policy was reconsidered, and Davis was sent to Tuskegee for pilot training. Because of the war and his ability, promotion followed rapidly, and soon he was a lieutenant colonel commanding the 99th Fighter Squadron in combat. After one year with this all-black unit in Italy, Davis was promoted to colonel and tasked to form the 322d Group. This black fighter group served admirably for the remainder of the war.

Segregation ended in the services in 1948 with a presidential decree. Davis then attended Air War College, served in the Pentagon, and was sent to Korea in 1953 to command a fighter wing. The following year he received his first star and moved to the Philippines as vice-commander of the Thirteenth Air Force. After tours in Taiwan, Germany, the Pentagon, and a return to Korea—while also gaining two more stars—Davis became commander of the Thirteenth Air Force at Clark Air Base. He obviously relished this command at the height of the Vietnam War and was reluctant to leave in July 1968 to become deputy commander of US Strike Command. He retired from that assignment in 1970.

It is surprising that no one has yet written a biography of the first black Air Force general. For now, however, we must be content with his autobiography, *Benjamin O. Davis, Jr., American: An Autobiography* (Washington, D.C.: Smithsonian Institution Press, 1991). This memoir is extremely well written. Some reviewers have commented that Davis was obsessed by his West Point experience, and although that is too strong a statement, clearly he was deeply affected by it. (Actually, most cadets are deeply affected by their academy experience, but few have such negative memories as did Davis.) The humiliation he suffered there stayed with him his entire career, and it was not until 1987—more than 50 years after his graduation—that he returned for a visit. Throughout, this book is marked by a sense of patriotism and faith—faith especially in himself and his cadet sweetheart who became his wife and who supported him so unfalteringly throughout his career. In one sense, this is a moving and touching love story. The criticism of this book is that it insufficiently discusses the key operational issues Davis faced in his several commands in three different wars. The issue of race overshadows all and takes

priority in the recalling of events. As a consequence, we are left with a poignant story that reveals clearly why Benjamin Davis was a successful man, but not why he was an equally successful senior commander.



Another of the great Tuskegee airmen was **Daniel ("Chappie") James, Jr**. Chappie won his wings and a commission in 1943 but did not see combat in World War II. After the war, James quickly earned a reputation as an outstanding fighter pilot. In Korea he flew 100 combat missions, and in Vietnam—by 1965 he was a full colonel—he flew over threescore more. Not only was that war unpopular, but racial unrest was exploding into violence all over the United States. James returned from Vietnam and was often called upon to defend not only America's military policies, but also its racial policies. An articulate speaker who commanded great physical presence (he was six feet, four inches and weighed nearly 250 pounds), he was an especially effective spokesman for the Air Force. In 1967 he was named commander of Wheelus AFB in Libya just as Colonel Khadafy succeeded in his revolution there. Khadafy demanded that the air base—which he saw as a vestige of European colonialism—be closed and its facilities turned over to the Libyan people. This obviously was an extremely delicate position for James requiring restraint, tact, diplomacy, and grit. He displayed an abundance of all these qualities, and upon leaving Wheelus a year later, he received his first star. After four years in the Pentagon working in Public Affairs where he won two more stars, he was named vice-commander of Military Airlift Command (MAC). After less than two years at MAC, he was given a fourth star—the first black in American history to attain that rank—and was named commander of the North American Air Defense (NORAD) Command. Surprisingly for a man of his size and appearance, James was in poor health. He suffered a heart attack in 1977 and soon after elected to retire. His health continued to decline and in February 1978, one month after retirement, he suffered another, fatal, heart attack.

There are two biographies of James. One by James R. McGovern is titled *Black Eagle: General Daniel "Chappie" James, Jr.* (University, Ala.: University of Alabama Press, 1985). McGovern portrays James as a patriotic, hard-working, articulate, and measured individual who served as a convincing spokesman for the black cause without becoming radicalized. James constantly stressed the qualities of determination and sincerity, arguing that performance, not skin color, was how a person should be judged. McGovern's approach is a balanced one. He notes the rumors that James avoided combat in Vietnam

and that his rapid rise in rank was politically motivated. However, he shows convincingly that James was a more-than-capable commander and that his performance in the difficult Libyan situation was outstanding. Clearly, James deserved his promotion to flag rank. Less satisfactory is McGovern's explanation for James's advancement from that point on. Granted, he was an effective and dynamic speaker who performed his duties in public affairs in an exemplary fashion, but those duties do not in themselves justify promotion to lieutenant general. Moreover, the decision to give James his fourth star—there are usually only about 12 full generals serving at a given time—was based on his performance as vice-commander of MAC. But McGovern dismisses this two-year assignment with only a single sentence. Moreover, James's three-year tenure as NORAD commander is scarcely addressed, earning barely one page. As a result, although the reader is left with a clear portrait of James's role as a civil rights pioneer, he is not provided an understanding of his performance as a senior commander.

The other biography of James is even less satisfactory: J. Alfred Phelps, *Chappie: America's First Black Four-Star General: The Life and Times of Daniel James, Jr.* (Novato, Calif.: Presidio Press, 1991). Phelps uses James as a symbol of integration, showing how blacks rose from their inferior status in the Second World War to acceptance three decades later. Unfortunately, this portrayal is marred by a tone both too strident and too glowing. For example, the author devotes several chapters to the racial problems faced by the Tuskegee airmen during the war, but admits James played almost no role in those events. Like the McGovern work, which Phelps borrows heavily from, there is inadequate explanation for James's mercurial rise in rank after 1969. Phelps asserts rather than demonstrates his competence and relies far too heavily on public relations speeches by James to illustrate his points. As a result, both these biographies leave the reader with more questions than they provide answers.

There are many stories told of young pilots sent to Europe in World War II who quickly rose to high rank because the life expectancy of combat aircrews was so brief. **George S. Brown** exemplifies such an individual: he graduated from West Point in 1941 and three years later was a full colonel. On one of his most famous missions he led his bomb group over Ploesti and won a Distinguished Service Cross. The downside of such a situation was that it took him an additional 15 years to receive his next promotion. In those intervening years Brown served as commander of bomber, transport, and

fighter units; was assistant operations officer of the Far East Air Forces during the Korean War; and became the executive officer for Air Force Chief of Staff Thomas White. After two years in this last position, Brown received his first star and became the military assistant to Secretary of Defense Robert McNamara. After leaving the Pentagon in 1963 as a major general, Brown became the commander of Twentieth Air Force (airlift) for two years and then returned to the Pentagon as special assistant to the chairman of the JCS (Gen Earle Wheeler). Promoted to full general, he was sent to Vietnam in 1968 to command the Seventh Air Force. Interestingly, as he left for Vietnam, then-Air Force Chief of Staff John Ryan told Brown he was being groomed to take over as chief a few years hence. As a result, when Brown returned to the States in 1970, he was named commander of Air Force Systems Command, "to make him well rounded." As promised, when Ryan retired in 1972, Brown was named chief. After less than nine months in that position, however, Brown was elevated to JCS chairman, the first airman to hold that position since Nate Twining 15 years earlier. During his tenure as chairman, Vietnam, Laos, and Cambodia fell; SALT II was negotiated; Cyprus erupted; the *Mayaguez* was stormed; and an Army officer was hacked to death by North Koreans. In addition, Brown found himself in hot water on two occasions when he gave speeches interpreted as "anti-Israel." Although some called for his immediate dismissal, the chairman survived these incidents. Unfortunately, he did not survive cancer. Like Hoyt Vandenberg two decades before, Brown's last months in office were spent in constant pain. George Brown retired in June 1978 and died of cancer six months later.

The only biography of Brown is by Edgar F. Puryear, Jr.: *George S. Brown, General, U. S. Air Force: Destined for Stars* (Novato, Calif.: Presidio Press, 1983). Puryear wanted to know what made Brown so successful, and concluded it was his honesty, integrity, sincerity, and intelligence. As a result of this focus, this work is more of a character study than it is a biography. Puryear relies on scores of interviews that relate what Brown was like, how he interacted with his superiors and subordinates, how he managed his staff meetings, etc. This focus on George Brown the man and the officer omits, however, the actual environment in which he worked and the problems he had to address. What we have is a seemingly endless stream of anecdotes and testimonials regarding the general's personality, but precious few facts on what precisely he was doing as a senior leader. For example, Brown was the assistant operations officer for the Far East Air Forces during the second year of the Korean War. Puryear relates how he interacted with his colleagues and what they thought of him, but there is scarcely any discussion of the war. Issues such as the close air support controversy with the Army and Marines, and the definition of "coordination control" with the Navy are not even mentioned. The result is a somewhat unsatisfactory character sketch devoid of substance.

Anthologies

There are also several anthologies containing brief biographies of leading airmen. One of these is Edgar Puryear, Jr.'s, *Stars in Flight: A Study in Air Force Character and Leadership* (San Rafael, Calif.: Presidio Press, 1981). The theme of this book is leadership, and the airmen chosen to illustrate it are the first five leaders of the modern Air Force: Hap Arnold, Carl Spaatz, Hoyt Vandenberg, Nate Twining, and Thomas White. The research is based largely on interviews and correspondence between the author and general officers who knew or worked for these men. Puryear's conclusion is that the key to leadership can be summed in the five qualities of duty, honor, service, courage (both moral and physical), and decisiveness—qualities possessed by the airmen discussed. As with his biography of George Brown, the result is not successful. Because Puryear is aiming at an audience of cadets or junior officers, the biographical sketches amount to hero building rather than critical analysis. In addition, his heavy reliance on interviews and letters results in this being little more than a series of quotations and stories strung together with little cohesion or overall point. This approach does, however, give some insights into the personalities of these men, insights that would be a useful starting point for someone wanting to begin a serious study.

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Curt Anders's intent is to describe the lives of seven great American airmen: Billy Mitchell, "who had the initial vision"; Curtis LeMay, who brought that vision "to its closest approximation in practice"; and five others who kept that vision alive through their combat leadership—Eddie Rickenbacker, Hap Arnold, Jimmy Doolittle, Claire Chennault, and George Kenney. Anders's book, *Fighting Airmen* (New York: Putnam's Press, 1966) is little more than a series of tributes with no attempt at balance. Like Puryear, however, there is some useful information here that can get one started on a serious investigation of air leadership.

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An extremely well-written and interesting piece regarding the early careers of Arnold, Spaatz, and Eaker is "Leadership in the Old Air Force: A Postgraduate Assignment" by David MacIsaac, which was the 1987 Harmon Memorial Lecture. (Located in Harry R. Borowski, ed., *The Harmon Memorial Lectures in Military History, 1959–1987* [Washington, D.C.: Office of Air Force History, 1988]).

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The best of the anthologies is edited by John L. Frisbee, *Makers of the United States Air Force* (Washington, D.C.: Office of Air Force History, 1987). This work contains chapter-length biographical sketches of the following: Benjamin Foulois (Fred Shiner), Frank Andrews (DeWitt Copp), Harold L. George (Haywood Hansell, Jr.), Hugh Knerr (Murray Green), George Kenney (Herman Wolk), William E. Kepner (Paul Henry), Elwood R. Quesada (John Schlight), Hoyt S. Vandenberg (Noel Parrish), Benjamin O. Davis, Jr. (Alan Gropman), Nathan F. Twining (Donald Mrozek), Bernard A. Schriever (Jacob Neufeld), and Robinson Risner (T. R. Milton). These individuals were selected not only because of their importance but because they had received insufficient attention from historians. Although the essays are not footnoted, they are of a high caliber and are able to describe not only the personalities of the men but also their significance.

The most interesting essays are those dealing with "the forgotten airmen." Frank Andrews was the first commander of the GHQ Air Force in 1935, was the first airman ever promoted to three-star rank, and was commander of the European theater at the time of his death in a plane crash in 1943. Hal George was one of the key figures in the development of bombardment doctrine at the tactical school in the 1930s, helped author AWPD-1, and was wartime head of Air Transport Command. Hugh Knerr was Carl Spaatz's administrative chief in Europe and the Air Force's first inspector general. William Kepner was a famous balloonist in the interwar years and head of VIII Fighter Command at the time of "Big Week" in February 1944. He finished the war as commander of the Eighth Air Force. "Pete" Quesada was one of the *Question Mark* pilots in 1929, led the IX Tactical Air Command across Europe in 1944–45, and was the first commander of Tactical Air Command after the war. Bernard Schriever was a pilot-turned- engineer who is considered the father of the ICBM program. And Robbie Risner was a fighter pilot and ace in the Korean War, won the first-ever Air Force Cross in 1965 over the skies of Vietnam, and endured seven years as a prisoner of war in North Vietnam. This is an excellent book and should encourage historians seeking a topic worthy of a full-length biog- raphy. All of these men are excellent candidates.

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Another effort, sponsored by the Air Force History Office, is *Air Leadership: Proceedings of a Conference at Bolling Air Force Base, April 13–14, 1984*, edited by Wayne Thompson and published by the Office of Air Force History, Washington, D.C., in 1986. Several papers were given that concentrated on differing leadership styles. Two airmen, Carl Spaatz (Dave Mets and I. B. Holley) and William Moffett (Thomas Hone) were singled out for examination. (Other papers discussed RAF-AAF relations during World War

II and the manager-versus-leader debate in the postwar Air Force.) Although these biographical sketches are useful, of greater interest are the panel discussions by luminaries such as Generals Curtis LeMay, Mark Bradley, Bryce Poe, Brian Gunderson, and Al Hurley. The reminiscences of these men, prompted by questions from the audience, are quite enlightening.

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DeWitt S. Copp wrote two very popular books that trace the history of Army aviation from the Wright brothers through World War II: *A Few Great Captains: The Men and Events that Shaped the Development of U.S. Air Power* (Garden City, N.Y.: Doubleday, 1980), which ends in 1939, and *Forged in Fire: Strategy and Decisions in the Air War over Europe, 1940–45* (Garden City, N.Y.: Doubleday, 1982), which covers the war years. Although these works are no biographies, they tell the history of the air arm through the eyes of various air leaders especially Hap Arnold, Frank Andrews, Carl Spaatz, and Ira Eaker. The biggest disappointment for the reader is that Copp never completed the story—he spends barely 30 pages on the last two years of the war. An intended third volume was never completed. As a consequence, the great airmen who would dominate the last two years of war and the postwar era—Vandenberg, Twining, White, LeMay—are barely introduced. In addition, although Copp clearly did a prodigious amount of research, he included few footnotes, and those mostly expanatory, which makes it impossible for others to take a closer look at his sources and interpretations. Finally, his treatment of the famous icons of American airpower borders on hagiography; there is scarcely a discouraging word here. Nonetheless, these are very entertaining works, mostly accurate, that tell the story of American airpower with passion and verve.

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One reference work that has proven invaluable to many researchers is Flint O. DuPre's *U.S. Air Force Biographical Dictionary* (New York: Franklin Watts, 1965). DuPre gives biographical sketches of American airmen who achieved at least three-star rank or who were famous for other reasons: Medal of Honor winners, Air Service/Air Corps chiefs, Air Force secretaries, etc. This is a well-done and important tool; unfortunately, it is now sadly out of date and in need of a major revision to include airmen from the past three decades.

Oral Histories

Another source that can be of great use to a researcher is oral history. Although there are serious pitfalls involved with this genre (memory of past events is often clouded, people sometimes tell the interviewer what they think

he wants to hear, few people are willing to admit their biggest or most embarrassing mistakes, and score settling is common fare), it can prove quite useful. Interviews can set a tone for a particular era or event, while also providing valuable context. In addition, personality traits, quirk, conflicts, and connections are often revealed in interviews that are not recorded in written histories. For example, it was a great surprise to me to learn in one interview that a certain high-ranking individual was an alcoholic. The issue came up in passing; it was something that had not entered my mind as a possibility but that had significant implications. With this revelation—which was confirmed in other interviews—other issues, decisions, and actions took on a far different light. The major caveat: the interview can open doors to interesting rooms, but a thorough examination of those rooms requires more conventional and definitive research methods.

Three organizations in particular have been especially active in interviewing distinguished airmen regarding their careers: the Historical Research Agency (HRA) at Maxwell AFB, Alabama; The History Department at the Air Force Academy in Colorado Springs, and researchers at Columbia University in New York City. The HRA collection is by far the largest of the three, containing over two thousand interviews. It is also quite broad, covering all periods and subjects. The Air Force Academy, on the other hand, has tended to concentrate on specific subjects dealing with the academy's history. For example, they have conducted a fascinating series of interviews with a number of their graduates who were prisoners of war during the Vietnam War and Persian Gulf War. For abstracts of the interviews conducted by the HRA and the academy, see Maurice Maryano, ed., *Catalog of the United States Air Force Oral History Collection* (Maxwell AFB, Ala.: Air University Press, 1989). Columbia University's collection is very large, but only a small number of its interviews concern airpower. For a list of these interviews, see Elizabeth B. Mason and Louis M. Starr, eds., *The Oral History Collection of Columbia University*, 4th ed. (New York: Oral History Research Office, 1979).

Conclusion

Seventy-nine studies, excluding the thousands of oral histories extant, have been included in the above discussion, which is more than I expected to find when starting this project. Nonetheless, the quality of those noted is quite uneven, and there are other anomalies: Claire Chennault has been overdone, while despite his importance and six biographies, the significance and leadership of Jimmy Doolittle are still obscure. Although we know enough of the details of Doolittle's life, we still need an analysis and explanation for his success as the commander of some of our most important air units at particularly crucial times. Similarly, it is doubtful whether new facts regarding the lives of Billy Mitchell, Hap Arnold, or Curtis LeMay will come to light; yet,

works that analyze their impact on the Air Force and its perception by the other services, Congress, and the public would be significant additions to the literature.

Amazingly, however, there are some truly great airmen who have been virtually ignored by biographers. First among these is Lauris Norstad, who was one of Arnold's key staff officers during the war; chief of staff of Twentieth Air Force; Vandenberg's deputy chief of staff for operations; commander of US Air Forces, Europe; and Supreme Allied Commander Europe—the only airman ever to hold that position. Next in importance is George Kenney. Although his published war diaries are both excellent and entertaining, his importance as air component commander and tactical innovator, and his postwar activities as the first commander of SAC are largely a mystery. Others desperately in need of a biography include: John P. McConnell, chief of staff during the early years of the Vietnam War; Nate Twining; Thomas White; Frank Andrews; Larry Kuter; Bernard Schriever; "Opie" Weyland, a great tactical airman who fought in three major wars; Harold L. George; David Jones, chief of staff and chairman of the JCS who led the fight to reform the military during the first Reagan administration; James Fechet, Air Corps chief between Patrick and Foulous; Jeanne Holm, the first woman to reach flag rank in the Air Force; and William Momyer, perhaps the most creative and innovative of the tactical airmen, who commanded the Seventh Air Force in Vietnam and Tactical Air Command after the war. There is also a specific gap in the literature concerning airmen who served as engineers or were involved in research and development. Perhaps a volume combining the biographies of men like George Brett, Oliver Echols, Benjamin Chidlaw, Laurence Craigie, and Donald Putt and discussing the technical evolution of airpower during and after World War II would be appropriate.

In addition, something must be done to encourage senior air leaders to write their memoirs. We desperately need to know their stories. Those whose accounts would be most useful include: "Ross" Milton, bomb leader at Schweinfurt, chief of staff of the Berlin airlift, chief of staff of NATO, and member of the Rostow mission to Vietnam; William Momyer (Momyer did publish a book, *Airpower in Three Wars* [Washington, D.C.: Department of the Air Force, 1978], but it is more of a comment on tactical air operations in World War II, Korea, and Vietnam, than it is a memoir.); Bernard Schriever; David Jones; Lew Allen, chief of staff and transitional figure between the era dominated by SAC and that dominated by TAC; Russell Dougherty, commander of SAC and one of the great strategic thinkers in Air Force history; Robin Olds, fighter ace and war hero in two different wars; Brent Scowcroft, the national security advisor to President George Bush; Larry Welch, chief of staff when the Soviet empire collapsed; Charles Horner, the hero of the Persian Gulf War and then commander of US Space Command; and Merrill

McPeak, chief of staff during the Gulf War and the momentous reorganization and downsizing that followed.

In sum, although much has been done already, very much more is still in need of accomplishment. Carl Builder has commented that the Air Force culture is dominated by technology, not people. In one sense he is correct, but technology is always the tool of men and women, and we must never lose sight of the human element in air warfare. Although there are limitations to biography—a tendency to exaggerate the significance of the individual in the events of his time and to forget that institutions, groups, and simple fate can also determine history—the insights into character, culture, behavior, and emotion far outweigh any potential drawbacks. We have much to learn from our past leaders. The challenges they faced are not so different from those we confront today and will meet in the future. Thorough, critical, dispassionate, and honest biographies and autobiographies are essential in assisting future airmen to meet their challenges.

About the Author

A graduate of the Air Force Academy in 1970, Col Phillip S. Meilinger received an MA from the University of Colorado and a PhD from the University of Michigan. After a tour at the Air Force Academy, Colonel Meilinger was assigned to the doctrine division on the Air Staff in the Pentagon, where he was responsible for writing and editing numerous Air Force and joint doctrine publications, working roles and missions issues, and participating in the planning cell for Instant Thunder during the Gulf War. He is a command pilot who has flown C-130s and HC-130s in both Europe and the Pacific, while also working as an operations officer in the Pacific Airlift Control Center at Clark Air Base.

Colonel Meilinger is dean of the School of Advanced Airpower Studies (SAAS), the Air Force's only graduate school for airpower strategists. He has been the dean of SAAS since July 1992. He is the author of *Hoyt S. Vandenberg: The Life of a General* (Bloomington, Ind.: Indiana University Press, 1989), as well as several dozen articles and reviews on airpower history and theory in journals such as *Armed Forces and Society, Armed Forces Journal International, Comparative Strategy, Journal of Military History,* and the *Airpower Journal.*